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ANALYSIS OF ARMY HELICOPTER INSPECTION REQUIREMENTS

Bruce B. Wierenga, et al

RCA Aerospace Systems Division

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ANALYSIS OF ARMY HELICOPTER INSPECTION REQUIREMENTS

By
Bruce B. Wierenga
Douglas O. Blake
Richard E. Hanson
Thomas N. Cook

September 1972

EUSTIS DIRECTORATE
U. S. ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LABORATORY
FORT EUSTIS, VIRGINIA

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RCA/GOVERNMENT AND COMMERCIAL SYSTEMS
AEROSPACE SYSTEMS DIVISION
BURLINGTON, MASSACHUSETTS

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13. ABSTRACT

Preventive maintenance scheduled inspection requirements were analyzed to select one inspection concept which could be applied effectively to all typical types of Army helicopters. A computer model was developed for comparison of alternate practicable inspection schemes. The model evaluates the impact of different inspection cycle times and variations in scheduling of specific components for inspection within that cycle. Many candidate inspection concepts were structured, scheduled, and analyzed with the model. The preferred concept was selected on the basis of a figure of merit which reflected the comparative reliability, safety, and availability achieved with each concept. Engineering analysis was used to evaluate the cost of each concept and those characteristics of the system which could not be quantified. Study results indicate that present inspection cycle times can be increased to provide increased efficiency and maintenance cost savings with little reduction in mission reliability. The modeling and engineering evaluations result in the selection of the phased-inspection concept with 100-hour interval and 800-hour cycle times as the recommended inspection system for Army helicopters. This concept provides a high figure of merit based upon reliability and availability considerations and indicates substantial cost advantage over the other concepts. In addition, phased inspection involves less severe disruptions to aircraft operating schedules since each inspection point represents a shorter, more manageable work package than in other concepts.

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14. KEY WORDS	LINK A		LINK B		LINK C	
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Preventive maintenance scheduled inspection Inspection concept Inspection interval Inspection cycle Inspection mix Failure onset theory Aircraft configuration file Master configuration file Helicopter inspection computer model						

DEPARTMENT OF THE ARMY
U. S. ARMY AIR MOBILITY RESEARCH & DEVELOPMENT LABORATORY
EUSTIS DIRECTORATE
FORT EUSTIS, VIRGINIA 23604

The Eustis Directorate of the U.S. Army Air Mobility Research and Development Laboratory is conducting a series of investigations of current Army helicopter maintenance operations and procedures, which include scheduled maintenance inspection systems and practices. It is intended that the results of these investigations will be directed toward determining the best way to achieve economic inspection and maintenance procedures while keeping abreast of the rapid advances in aircraft design.

This contract was awarded to analyze the existing scheme in aircraft maintenance scheduled inspection and to optimize a desirable system that would have universal application to the various helicopters in the Army inventory.

The findings presented herein are considered to be reasonable within the boundaries of a generic approach and may be directly usable in establishing future inspection schemes. The results of this study will be used in future studies dealing with helicopter maintenance data collection and helicopter maintenance procedures.

The technical monitor of this contract was Mr. William B. Sweeney, Reliability and Maintainability Division.

Task 1F162205A11905
Contract DAAJ02-71-C-0047
USAAMRDL Technical Report 72-35
September 1972

ANALYSIS OF ARMY HELICOPTER INSPECTION REQUIREMENTS

Final Report

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FORT EUSTIS, VIRGINIA

SUMMARY

This analysis of Army helicopter inspection requirements was performed by the RCA Corporation with the participation of the Kaman Aerospace Corporation. The major purpose was to perform a substantive engineering analysis of aircraft maintenance scheduled inspection to select and recommend the inspection concept which can most effectively be applied to all typical helicopter types required within the planned Army mission envelope. In addition, a checklist for use in the technology review of future aircraft design was developed.

Selection of the recommended inspection system involved analysis of the component complement of five helicopters. A computer model was developed for comparison of alternate practicable inspection schemes. This model evaluates the impact of different inspection cycle times and variations in scheduling of specific components for inspection within that cycle. Pertinent factors related to the effectiveness of inspection schemes are calculated. These factors provide a measure of safety, reliability, availability, and cost for use in the comparison. Component maintenance history data (RAMMIT, USABAAR, NAVY 3M) was evaluated and processed to form a master file of component data applicable to the evaluation. Candidate inspection concepts developed through review of Army doctrine, knowledge of Navy and Air Force practices, and engineering review component data were then evaluated within the model.

Engineering analyses and modeling results clearly indicate that present inspection cycle times can be increased to provide increased efficiency and maintenance cost savings with little reduction in mission reliability. The evaluations resulted in the selection of the phased inspection concept with 100-hour interval and 800-hour cycle times as the recommended inspection system for Army helicopters. This concept provides a high figure of merit based upon reliability and availability considerations and indicates substantial cost advantage over the other concepts. In addition, phased inspection involves less severe disruptions to aircraft operating schedules since each inspection point represents a shorter, more manageable work package than in other concepts.

FOREWORD

This study of helicopter inspection requirements was performed under Contract DAAJ02-71-C-0047 with the Eustis Directorate, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia. The work was authorized by DA Task 1F162205A11905. The study was under the general technical cognizance of Mr. William B. Sweeney and Major Vincent G. Ripoll of the Reliability and Maintainability Division. The analysis resulted in selection of the preventive maintenance scheduled aircraft inspection system best applicable to all typical Army helicopter types.

The authors wish to acknowledge the contributions made to this program by Messrs. L.R. Hulls of the RCA Corporation and Frank E. Starses of the Kaman Aerospace Corporation technical staffs. Acknowledgement of the contribution of Army personnel from the Fort Eustis aircraft maintenance training center who provided valuable study input data is also extended.

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TABLE OF CONTENTS

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LIST OF ILLUSTRATIONS

LIST OF TABLES

DISCUSSION

BACKGROUND AND STATEMENT OF THE PROBLEM

In 1951, studies were undertaken to evaluate an optimum maintenance inspection system that could be standardized and applied throughout the United States Army. The systems evaluated then were derived from the U.S. Air Force established preventive maintenance inspection systems. The U.S. Army aviation world has experienced a revolution in aircraft designs and configurations since that time; however, this revolution has never been paralleled by a close study of new or better systems in the preventive maintenance inspection scheme. Consequently, three different systems are presently being used by various activities of the U.S. Army. This application of different schemes to Army aircraft types has created the need for differences in the applicable 20-series technical manuals and modification in maintenance practices and reporting procedures.

Broad and intensive operational usage of military helicopters during the last decade has resulted in the development of a wealth of knowledge of helicopter maintenance and inspection requirements. This knowledge is contained within the maintenance records collected through the military services reporting systems and in the know-how of skilled aircraft maintenance personnel. These data sources are available for examination in evaluating many aspects of helicopter maintenance.

Government research documents in the Defense Documentation Center revealed numerous studies of special inspections but not a single study in the preventive maintenance scheduled inspection systems as prescribed by the Department of the Army since the early 1950's. This situation indicated that the evolution of preventive maintenance scheduled inspection had not followed the technological advancement of Army aviation. Yet presently available data indicated that a fruitful evaluation of the possible concepts could be accomplished. This led to the decision to contract for the analysis of Army helicopter inspection requirements described in this report.

STUDY OBJECTIVES

The basic objective of the work performed was to analyze the existing schemes in aircraft maintenance scheduled inspection for the typical current Army helicopter types (LOH, UH, AH, CH-Medium and CH-Heavy) and to select and recommend an optimum concept. The inspection system selected was required to be that system which can most effectively be applied as standard for all aircraft types in all or any size units regardless of assigned mission or geographical location.

As a secondary objective, preparation of a checklist for use in technology reviews of future designs as they relate to helicopter maintenance inspection was required.

INSPECTION SYSTEM DESIRED CHARACTERISTICS

A number of basic characteristics were sought in selection of the optimum helicopter inspection system. As part of the study plan formulation, each of these was evaluated to determine the extent to which factors were interrelated and the impact of each on the analytical technique to be used. Certain basic considerations evolved from this analysis and contributed to development of the technical approach:

Universal Application (Same for All Aircraft). This was considered to be a primary study goal. The inspection system ultimately adopted should be suitable to any size or complexity helicopter in the forseeable Army inventory and should also accommodate variations in force size, use levels, mission assignment, and operating environments. At the outset it was recognized, however, that a given inspection concept might well prove to be more desirable for certain classes of aircraft and operating conditions than for others, but that the objective was to structure the one concept best for all aircraft types. It was important that this objective be foremost among the study goals.

Accomplished Predominantly by Crew Chief. The optimum inspection system should minimize the number and types of inspection personnel required. The flight-readiness inspections (preflight, daily, etc.) should not require skills beyond those possessed by the crew chief and should not be more time-consuming than is practicable for one man to perform. It would be desirable to have the crew chief accomplish at least part of

the scheduled inspections, possibly all on the smaller, less complex aircraft. Any endeavor to minimize the size of the inspection crew should, however, seek a proper balance with other, equally important factors such as inspection efficiency, downtime, etc. Some additional personnel and skills would obviously be required for the scheduled inspections, especially for the larger, more complex aircraft.

<u>Minimum Special Inspections</u>. Special inspection requirements are largely of two types. First there are those predicated upon the occurrence of unusual events such as hard landings, rotor overspeeds, etc. Special examinations are required in these circumstances to ascertain the extent of damage suffered by certain critical components of the aircraft and are often made necessary by certain unique characteristics of the design. Other special inspection requirements arise from the need to employ interim precautions until a known hardware problem has been corrected. Neither of these kinds of inspections can be dealt with effectively in a general study of inspection systems. As mentioned earlier, moreover, numerous studies had already been conducted in this area. The requirement to minimize special inspections was therefore, more pointedly, a requirement to avoid introducing new special inspections as part of the recommended system.

<u>Clock Hours Per Aircraft Type Per Cycle of Inspections</u>. A target number of inspection clock hours per one-hundred-hour inspection cycle was established as an objective for each of five basic helicopter types being covered in the study. A one-hundred-hour cycle was used to permit equitable comparisons between inspection systems involving different cycle times. Maintenance crew size was viewed as the dominant factor in the control of inspection time, one which had to be balanced against considerations of personnel efficiency. The targeted clock hours of inspection per cycle per aircraft type were:

LOH	4
UH	20
AH	24
CH-Medium	40
CH-Heavy	28

It should be noted that this study did not address avionics and weapon system inspection requirements. It was assumed that inspection time for these items was not included within the targeted clock hours indicated above.

High Probability of Detecting Incipient Failure. The probability of detecting an incipient failure is related to the failure characteristic, the frequency at which the item is inspected, and the manner in which it is inspected. Some items fail randomly and suddenly, providing no opportunity for prior detection. For others, symptoms of impending failure are sporadic or inconclusive. And in yet other cases, the evidence of failure and its symptoms are known, but presently available inspection technology is not effective. The objective in the present study was addressed to the scheduling problem, i.e., the selection of inspection intervals which would maximize the probability of incipient failure detection for the various conditions that might prevail.

Chronological and Systematic Inspection. The inspection systems considered should not involve irregular inspection intervals, gross variance in the amount of work performed at each inspection point, or other characteristics which would unduly complicate the planning and scheduling functions. Overall design of the system should promote inspection efficiency.

STUDY APPROACH

The desired system characteristics and program objectives discussed above established the basic scope and direction of the study. Review of these goals indicated the broad analysis approach to be implied by the nature of the study itself. The optimum inspection system is the one which provides the maximum effectiveness for the least cost. Comparative achievement of inspection system desired characteristics by candidate inspection schemes must then be described and measured in a cost-effectiveness context.

Many indicators of effectiveness might be applied to an inspection system. Inspection is a maintenance technique which seeks to enhance the reliability and safety of the aircraft while simultaneously promoting mission readiness and maintenance economy. Obviously, these goals are not always entirely compatible. All of the effectiveness indicators for an inspection system are ultimately related, however, to the comparative frequency of preventive versus unscheduled repairs. Preventive repairs are preferred because flight schedule disruptions are less frequent, secondary damage due to catastrophic failure is minimized, and repairs are generally less costly. Moreover, unscheduled repairs (failures) reduce mission

reliability and safety and are detrimental to operational availability. The important quantitative measures of an inspection system's effectiveness are, then, the levels of aircraft reliability, safety, and readiness attained with the system. Also significant are such qualitative characteristics as the ability to plan and schedule inspections efficiently and the adaptability of the system to diverse operating schedules, environmental conditions, and mission demands. Intangible factors such as pilot confidence, while inherently involved in the system's effectiveness, are intuitively difficult to assess.

On the cost side of the problem, many factors might be considered. It is reasonable to conclude, however, that relative cost differences between competing inspection systems can be adequately portrayed by the direct labor expenses involved. Overhead and administrative expenses, facilities, and logistics costs can be expected to vary, for the most part, in a direct relationship to the labor demand. Moreover, a single, relative measure of cost, such as direct labor, uncomplicates the comparisons between systems.

Approaching the problem called for a method of structuring and scheduling various inspection concepts and measuring progress toward desired characteristics against cost or man-hours. The methodology used would have to provide realistic, quantitative comparisons between candidate schemes and should be relatively free of subjective judgement in the final selection process. Not all of the objectives were amenable to quantification, however, and these would have to be evaluated through engineering analysis.

The technical approach selected centered around developing and applying an analytical computer model. Several advantages were offered by the computer-assisted analysis that would not have been present with a manual treatment of the study. Speed and flexibility are the most important of these. Use of a computer model allowed the analyst to specify different combinations of items and inspection points quickly and to test many variations. It also facilitated the many iterations needed to optimize inspection intervals and component mixes.

The data bank (master configuration file) on which the computer model operates contains records representing the generic types of components typical of current-day helicopters. Each record

contains, in addition to the identity of the component, data describing the typical failure, maintenance and inspection characteristics for that component. The data bank was compiled through an extensive analysis of relevant aircraft historical records and technical data. Historical records analyzed included U.S. Army data for the five basic rotary wing aircraft types considered in the study and U.S. Navy data for aircraft equivalent to those Army types. Navy records utilized for all the helicopter types except the LOH were for Marine Corps aircraft which were operated in an environment similar to that of the Army.

The inspection analysis model structures a specified helicopter configuration by selectively extracting records from the data file in building-block fashion as each helicopter system is analyzed. Companion data files, called the aircraft type configuration files, define each of the helicopter configurations in terms of the components and component quantities comprising the various subsystems. As a given aircraft configuration is processed by the computer model, the background data pertinent to each component is retrieved from the master file using the applicable aircraft type file as a directory. Other inputs to the computer model are helicopter utilization factors and data which defines the inspection scheme, i.e., inspection cycles, intervals, and component mixes.

The model outputs provided the baseline data for evaluation of the competing inspection schemes. The effectiveness indices generated by the modeling were used to produce figures of merit which, when combined with other engineering analyses, were used to rank the various concepts.

Figure 1 is a flow chart which shows the progression of study actions. After completion of planning, the analysis followed parallel paths of data acquisition and analysis and computer model development. After the data bank had been compiled and the model programmed, an initial set of candidate inspection concepts was developed. At this point, exercising of the computer model could be effectively initiated. Logic debugging runs were made and the workability of the model was established. Baseline runs were then completed, and the model was finalized through minor modification to produce better visibility in the results. Analysis of results from additional runs which utilized the finalized model allowed the development of a figure of merit for concept comparison. In this development it became apparent

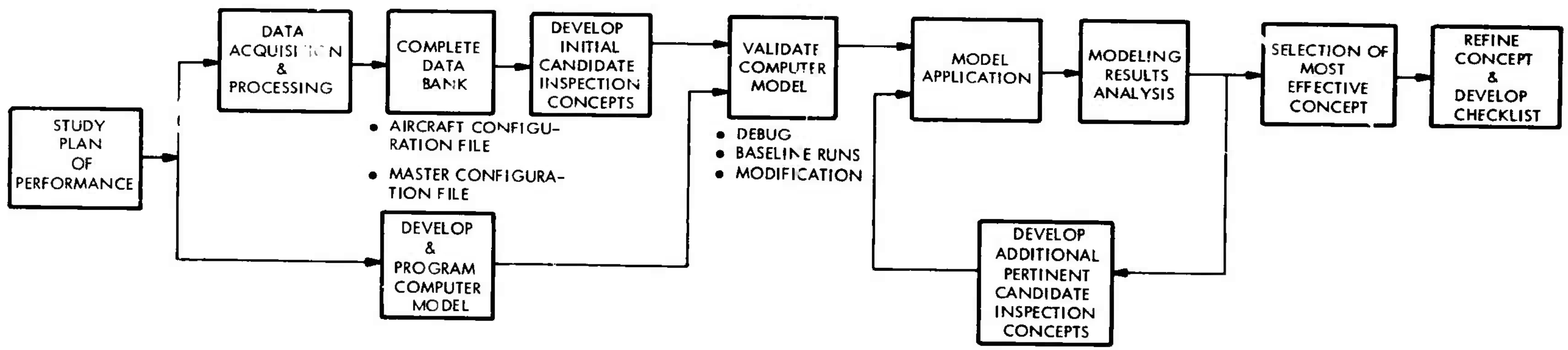


Figure 1 . Study Flow Chart.

that utilization of the figure of merit would most effectively serve as a screening function to select those schemes with the best promise, and that engineering judgement should then be applied in the final selection to assure consideration of all factors including those difficult to quantify.

The most effective inspection concept was selected following an iterative process of model application, results analysis, and candidate inspection scheme development until the sensitivity of the modeling to the input variables was explored and a full spectrum of schemes was evaluated. After selection of the recommended concept, further analyses were performed to refine and develop the concept. The knowledge acquired as a result of the inspection system modeling was integrated into a checklist for technology reviews of future designs as they relate to helicopter maintenance inspection.

INSPECTION MODEL DESCRIPTION

The computerized mathematical model developed in the study is structured to provide a systematic method for evaluating the effectiveness of alternate inspection concepts. The magnitude of the aircraft inspection process in terms of the number of components involved places practical constraints on the analytical processes which could be applied in the model. Essentially, the analysis must be sufficiently general to permit its application to all the components encompassed by the inspection procedure. The parameters required to perform the calculations must also be readily extractable from existing inspection data.

The complete model uses the facility of the digital computer to sequentially apply the basic analytical concept to the total spectrum of components. The results of all these analyses are then combined to provide a profile of the characteristics of the inspection scheme. The profile can be presented in a variety of ways to emphasize such key factors as maintenance man-hours per flight-hour, aircraft availability, etc.

In the study a simple analytical method was developed which enables the number of good, failing, and failed components in a population to be computed as a function of the inspection interval expressed in flight-hours. The computation uses component parameters which can be extracted in a straightforward manner from the available inspection data.

The model produces the profile of the characteristics of the inspection concept on the basis of a data input which supplies the component parameters, the component mix in the aircraft, and a formal description of the inspection concept which quantitatively defines inspection intervals. Mission profile information contained within the model data bank provides the capability of converting calendar time to flight hours when a calendar inspection concept is to be evaluated.

Model Structure

The inspection analysis model, shown schematically in Figure 2, is designed to perform several basic functions. It will define each of the specified helicopter configurations in terms of the types and quantities of components comprising its various subsystems. This is accomplished by means of the aircraft configuration files, which store all of the necessary component background data required for the analysis. Other inputs to the model include the data defining the inspection scheme, the aircraft types, and inspection crew sizes to be evaluated.

The computer program combines the input parameters with the component characteristics and performs a series of calculations which yield expected values for preventive repairs, failures, and maintenance man-hours for inspection and repair under the inspection scheme. This process is continued until all components comprising one helicopter configuration have been evaluated. Next the expected values are processed to provide a summary of selected indicators for the helicopter type under the inspection scheme. Cycling through the model continues until all of the helicopter configurations have been evaluated. At the conclusion of the computer run, a matrix is generated which displays the summary of expected value outputs shown in Figure 3. The figure shows the data matrix printed out as the summary of results for each computer run.

Comparison of results from different computer runs led to model iterations with input parameters modified to investigate the impact of variations in significant areas. This iterative process was followed until sufficient information was available to allow selection of the optimum inspection concept.

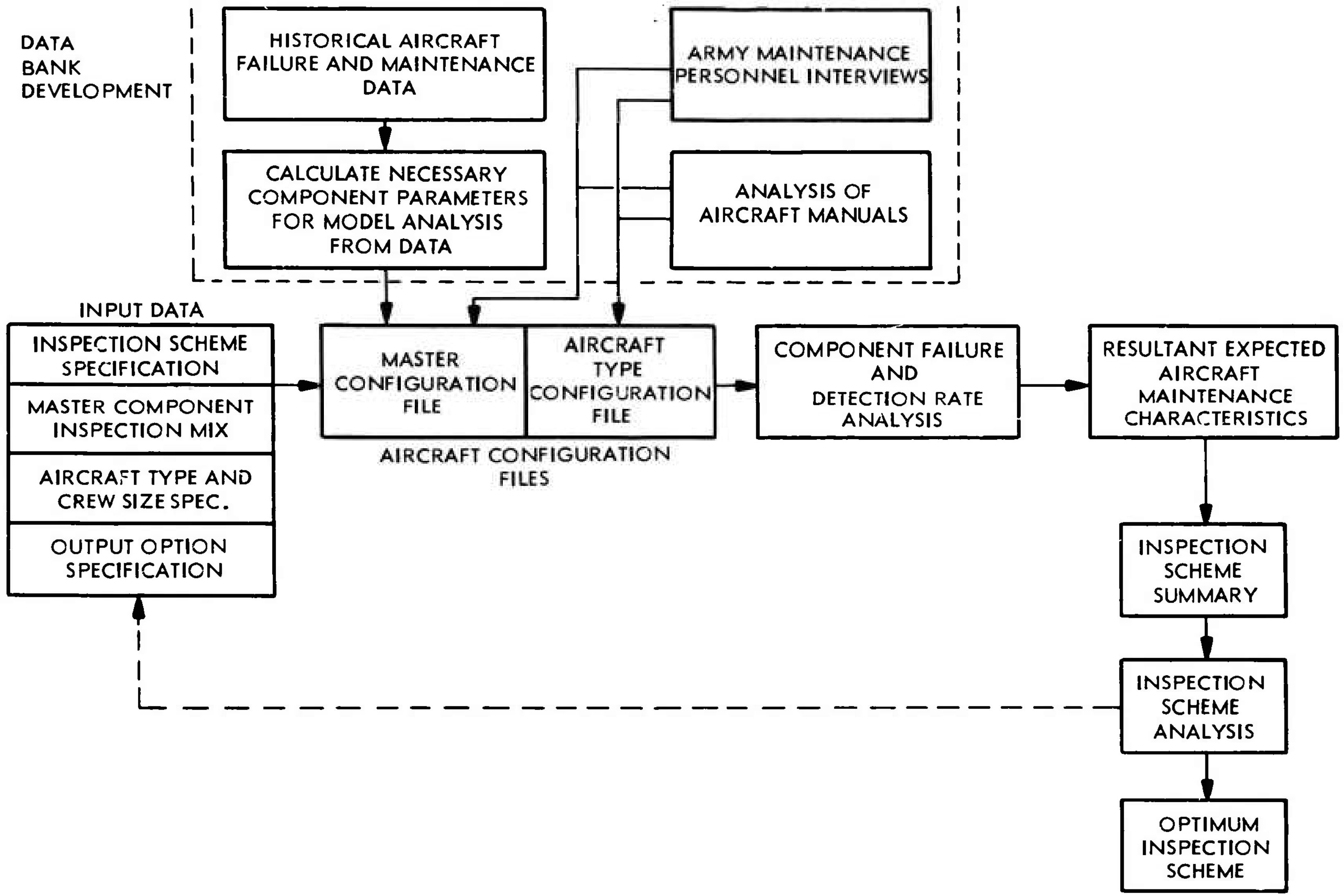


Figure 2. Inspection Analysis Model Schematic.

BASIC OUTPUT CALCULATIONS	LOH	AH	UH	CH-MEDIUM	CH-HEAVY
FLIGHT RELIABILITY					
MISSION RELIABILITY					
AVAILABILITY					
NORM-SCHEDULED					
NORM-UNSCHEDULED					
MH/FH - FLT READINESS INSP					
MH/FH - SCHEDULED - LOOK					
MH/FH - SCHEDULED - FIX					
MH/FH - UNSCHEDULED MAINTENANCE					
MH/FH - TOTAL					
UNSCHEDULED MTBM					

(Column group heading: HELICOPTER TYPES)

Figure 3. Inspection Scheme Summary Matrix.

Aircraft Configuration Files

The model can process computer configurations for all of the basic types of helicopters and also is easily expandable to additional types if this should be desired in the future. This is accomplished by the data bank structure incorporated into the model. This consists of two types of aircraft configuration files: the master configuration file and the aircraft type configuration file.

The master configuration file contains a data record for each generic type of helicopter component which requires scheduled inspection based on the composite analysis of all five types of helicopters (LOH, UH, AH, CH-Medium, and CH-Heavy). In most cases, study input data indicated that all components of a certain type have similar basic failure behavior. Where there was a marked difference, multiple entries for those components were made in the file. Thus, failure data from all helicopter types has been used to generate the typical component failure data records for each generic type of component within the master configuration file.

The aircraft type configuration files consist of one file for each type of helicopter to be evaluated. Each file contains the helicopter type and a list of those components in the master configuration file which are included on that type of helicopter. To evaluate an inspection scheme for a certain type of aircraft, the model combines the corresponding inspection input data and master configuration file records with all components and quantities listed in the appropriate aircraft configuration file, performs the necessary calculations, and prints out the desired output data.

Program Input Data

The input data for the program consists of four groups, as shown in the schematic of Figure 2. The first two groups completely describe the inspection scheme being evaluated. The inspection scheme specification includes the identifying inspection scheme number, the flight-hour interval between scheduled inspections, the total flight-hours in an inspection cycle, and the types of flight readiness and scheduled inspections to be applied. The term "flight readiness" refers to preflight, postflight, or daily inspection or combinations of these inspection types.

The master component inspection mix lists all components to be inspected and whether or not each component is to be inspected at preflight, postflight, or daily inspections. It also includes the number of the scheduled intervals at which the component is to be inspected. This sets the scheduling concept to be used for each component inspected within the inspection scheme. With this program structure, several different schemes or time intervals can be evaluated by changing only the inspection scheme specification input card.

The last two groups of input data include the aircraft type and crew size specifications and the output option specification. The first of these specifies the aircraft types to be evaluated by the model and the inspection crew sizes to be applied at each inspection within an inspection cycle. The inspection crew size includes only those maintenance personnel actually employed in inspecting the aircraft. The output option specification allows the user to specify the outputs of interest in the model run being made.

Model Calculations

Figure 4 shows the mathematical calculation flow contained within the model. Data transfers from aircraft data files and from inspection concept specification inputs are indicated. The terms λ, T_{OS}, and failure analysis model used in the figure are defined and discussed under the subheading which follows (Model Failure Theory). A complete description of the mathematical formulations utilized in the model is provided in Appendix I.

Model calculation flow results in computation of four major outputs: availability, total maintenance man-hours per flight-hour, flight reliability, and mission reliability. These major parameters are calculated as follows:

Availability

Availability as used in this study has been calculated based on a desire for the aircraft to be available 24 hours/day and 7 days/week. There is one exception to this basic assumption. It is assumed that the flight-readiness inspections (preflight, postflight, or daily inspections) can be accomplished around the required operational use of the aircraft, and thus the elapsed time required for flight-readiness inspections has not been included in downtime and availability calculations within the model.

$$\text{Availability} = 1 - \frac{\text{Downtime Hr/1000 Flt-Hr}}{\text{Calendar Time Hr/1000 Flt-Hr}}$$

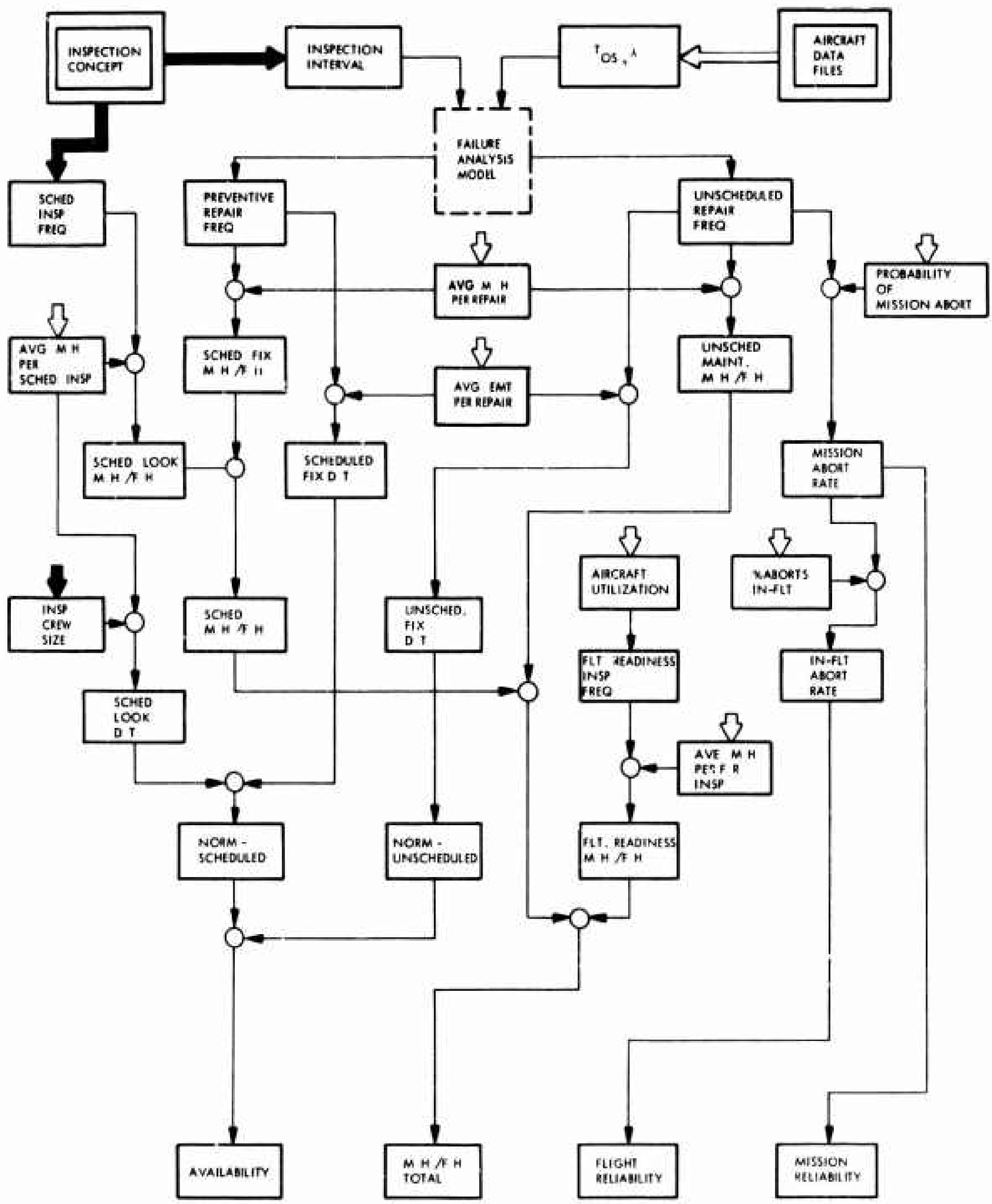
$$= 1 - \frac{\text{Downtime Hrs}}{\text{Calendar Time Hrs}}$$

where calendar time per 1000 hours is based on the average utilization of the appropriate aircraft type.

It should be noted that the availability calculated will be higher than that normally expected since no downtime due to awaiting maintenance or supply time is included. Only downtime due to inspection and repair actions is included in the calculation.

Total Man-Hours Per Flight-Hour

Total man-hours per flight-hour as calculated within the model is the summation of all maintenance man-hours required



= DATA TRANSFER FROM AIRCRAFT DATA FILES

= DATA TRANSFER FROM INSPECTION CONCEPT SPECIFICATION DATA

DT - DOWNTIME
EMT - ELAPSED MAINTENANCE TIME
FH - FLIGHT HOUR
FLT - FLIGHT
FR - FLIGHT - READINESS
FREQ - FREQUENCY
INSP - INSPECTION
MH - MAN - HOURS
SCHED - SCHEDULED

Figure 4. Model Calculation Flow.

for all inspections and for all scheduled and unscheduled repair (fix) actions.

Note that this man-hour calculation does not include time required for the day-to-day upkeep of the aircraft. Such items as man-hours required for washing, cleaning, mooring, ground handling, fueling, etc., are not included. "Total" man-hours calculated in the study then are lower than those that should be expected operationally. Study evaluation in this area is based upon comparative manpower required for inspection and repair between the various inspection concepts and not calculation of absolute operational manpower requirements.

Flight and Mission Reliability

Flight and mission reliability calculations are based upon failure history data for the percentages of failures causing in-flight and mission aborts. Mission abort probability includes failure causing both preflight and in-flight aborts. Preflight aborts are defined as those aborts caused by discovery of the requirement for maintenance by the air crew before takeoff and after ground maintenance personnel have completed their inspection. Flight and mission reliability are calculated using the following formulas:

$$\text{Flt Reliability} = 1 - \frac{\text{Total In-Flt Aborts/10,000 Flt-Hr}}{\text{Total Number of Flts per 10,000 Flt-Hr}}$$

$$\text{Mission Reliability} = 1 - \frac{\text{Total Mission Aborts/10,000 Flt-Hr}}{\text{Total Number of Flts per 10,000 Flt-Hr}}$$

The total number of flights per 10,000 flight-hours is dependent upon the mission profile for each aircraft type.

Model Failure Theory

In order to realistically calculate the effects of variations in inspection interval on the operational parameters of an aircraft, it is necessary to model the relationship between component inspection interval and failure behavior. Two general failure categories exist. Either a component wears out, with the probability of failure increasing with increasing hours of operation, or random failures occur during the useful life of a component.

A single component can fit into both of these categories. Figure 5 shows a typical failure rate versus operating time curve for such a component.

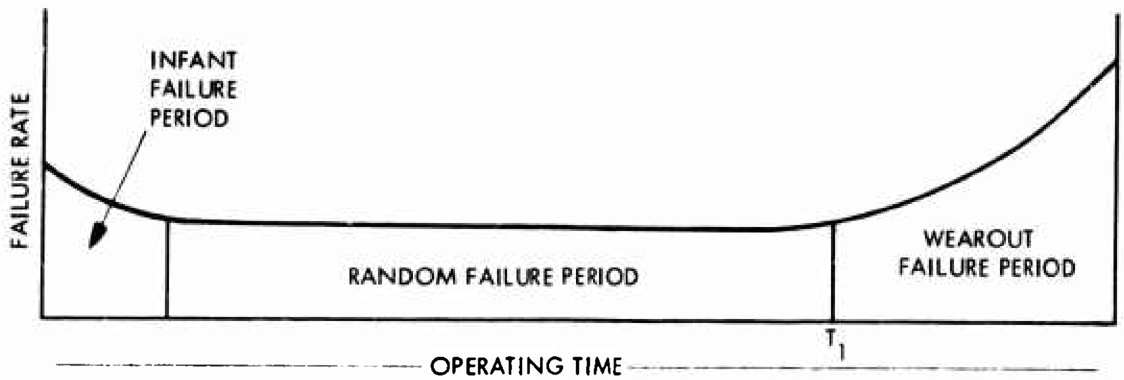


Figure 5. Failure Rate Versus Operating Time.

As operating time is increased, after an initial infant failure period, failures of the random type are to be expected. Then as the expected end of component life is approached, a component wearout failure period is entered. Shifting the time when inspection is scheduled, T_1, creates an expected component failure behavior characteristic fitting only one of the general failure categories mentioned. Thus this type of representation can then be used to fit a wide range of component failure behavior.

Using present inspection techniques, these component failures may occur without any detectable warning signs or progressively such that the onset of failure is detectable prior to its occurrence. Scheduled inspections should place major concern on components of this latter type since it is only these components whose failure behavior is affected by inspections.

Field data available for this study was sufficient to allow for the development of model and data bank considering both the random and wearout failure properties of components. Data necessary for analysis of the infant failure period was not available; therefore, no distinction between these and random failures was made. The model takes into account whether or not present inspection methods typically detect any impending component failures. The five basic assumptions used in the model are as follows:

1. Start of failure is random. All components are assumed to have a random rate of entering a detectably deteriorated state, λ.

2. Given that a component has entered the deteriorated state, there is an average time interval, T_{OS}, between the time when the component is first detectably unacceptable and the time at which failure occurs (for sudden or undetectable failures, $T_{os} = 0$).

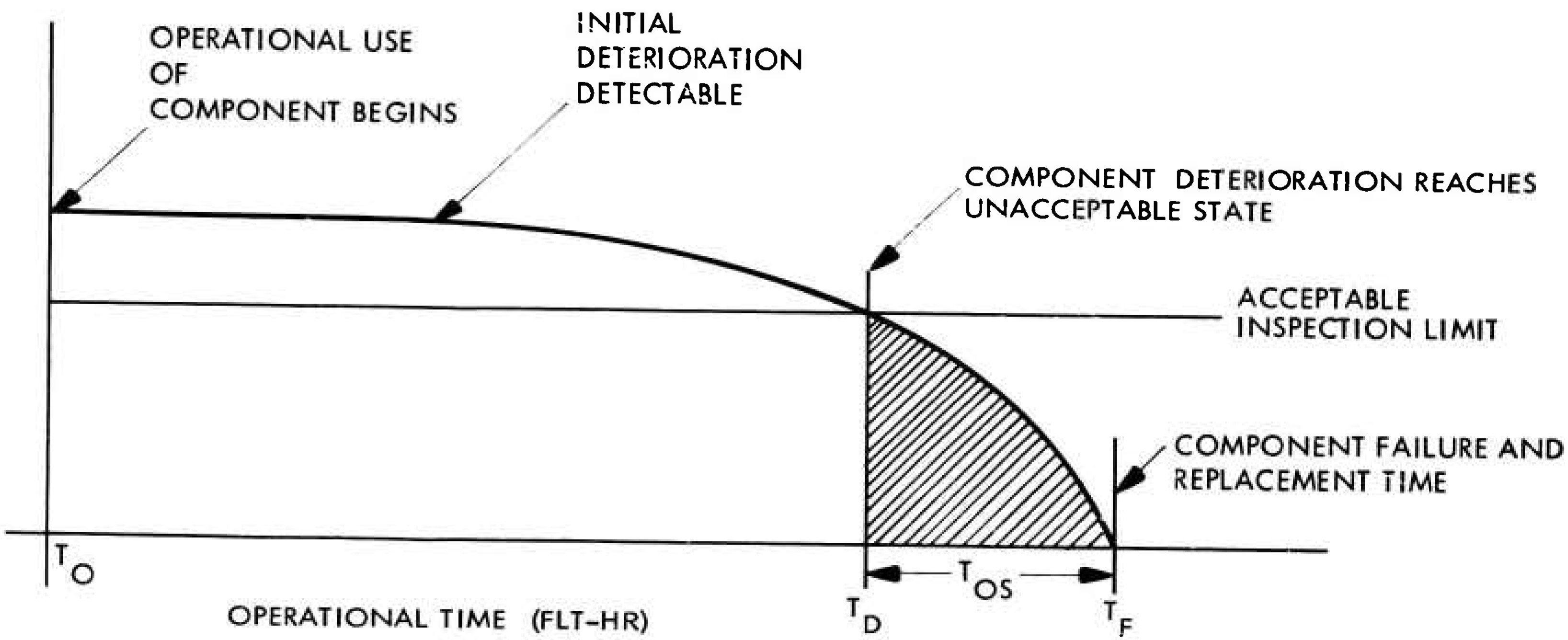
3. If a component is found in a detectably deteriorated state during a scheduled inspection (flight-readiness inspections not included), a preventive repair will be made at that time.

4. A component is assumed not to be deteriorated at the time of installation.

5. If a component failure occurs between inspections, the component will be replaced at that time.

The key to understanding the failure behavior model is the T_{OS} concept. T_{OS} has been defined as the average time interval between the time when the component is first detectably unacceptable and the time at which failure occurs. Figure 6 illustrates the relationship of T_{OS} to an average detectable failure characteristic for a sample component. Any single component of this type may suffer from either a more abrupt failure or a longer deterioration interval than is represented in this figure, meaning that for a given component there is actually a deterioration interval distribution around the average value of T_{OS}. The model was developed for use in studying the general relationship of different inspection concepts to the operational parameters of all Army helicopter types. Results were derived through use of data for a listing of generic components present in many or all of the five typical helicopter types under evaluation. Generic component data used was, in most cases, a composite of historical data for the many types. In this situation, incorporating T_{OS} distributions would have had little effect when comparing model outputs for the different candidate inspection schemes. Thus, the T_{OS} average values used were considered sufficient for the required model calculations.

T_{OS}, as used in this study, reflects the ability of present inspection techniques to detect failure onset since the data base



T_O = TIME OF INITIAL OPERATIONAL USE

T_D = TIME COMPONENT DETERIORATION ENTERS UNACCEPTABLE STATE

T_P = TIME OF COMPONENT REPLACEMENT DUE TO FAILURE

Figure 6. Component Deterioration and T_{os}.

from which it is derived (see Appendix I) is recent maintenance records. Calculation of T_{OS} from data is dependent upon breaking the historical failures up into "when found" classifications. T_{OS} for a component is directly related to the percentage of past failures found during scheduled inspections and the corresponding time interval between inspections. If present inspection techniques in general are unable to detect the deterioration of a component, the resultant impending failures found and replaced during scheduled inspections will be near zero, implying that $T_{OS} = 0$. If, however, present inspection techniques have consistently found most impending failures during scheduled inspections, a longer T_{OS} of the same order of magnitude as the time interval between inspections is implied. Thus, T_{OS} reflects not only the deterioration characteristics of a component but also the effectiveness of present inspection techniques.

The effect of component replacements leads to a random failure distribution across time. The probability of a component entering the detectably unacceptable state by a certain time can be calculated using the basic exponential equations associated with random failures modified to take into account the effects of replacement and T_{OS} (see Appendix I). If a component enters the detectably unacceptable state at a time less than its T_{OS} before the next scheduled inspection, it will result in an impending failure being detected at that time. Thus, by calculating the probability of a component entering the detectably unacceptable state within the time T_{OS} before an inspection, the probability of an impending failure being found during an inspection has been calculated. The same basic equations have been used to calculate the probability of a component failure occurring between inspections (see Appendix I). Figure 7 illustrates the relationship of T_{OS} to scheduled inspection intervals with three examples. The first example, Component X, has been characterized by a T_{OS} much smaller than the scheduled inspection interval, which results in a small percentage of component replacements occurring at inspection intervals. The second example, Component Y, illustrates the opposite extreme for a T_{OS} greater than the inspection interval, which results in most replacements occurring at scheduled inspection intervals. The third example, Component Z, indicates the result for an intermediate value of T_{OS}. A detailed description of the mathematical modeling of component failure behavior and the calculation of the required model parameters is included in Appendix I.

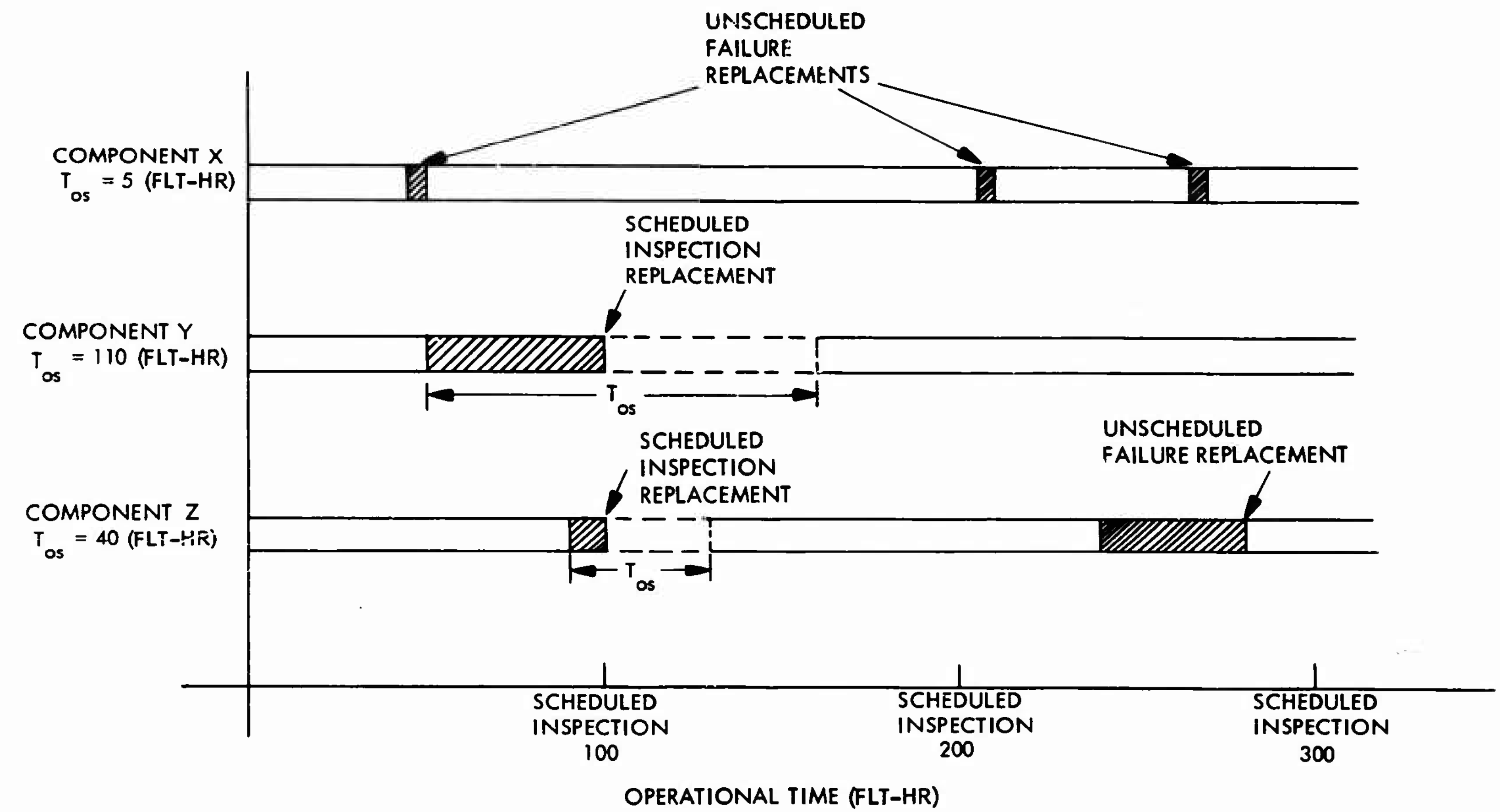


Figure 7. Variation in T_{os} Versus Inspection Interval.

DATA BASE AND DATA DEVELOPMENT

In the description of the inspection analysis model earlier, it was explained how the model operates on two basic data files: the master configuration file and aircraft type configuration file. The manner in which data was collected, processed, and analyzed to develop these files is described next. Appendix II lists documentation used in the study.

Aircraft Type Configuration File

The aircraft type configuration file is one of the two aircraft data files used in the modeling. This file structures each of the five helicopter types in terms of the systems, components, and component quantities present in each aircraft. Subsystems and components listed within the file correspond via code to components in the master configuration file. During model operations, the aircraft type configuration file is used as an index to select data from the master file for the roster of components defined for each aircraft type.

Aircraft type files used in the study were developed through engineering analyses and a field survey in which Army technicians intimately familiar with the various helicopters assisted directly in defining each configuration. All of the technicians interviewed were career military personnel, and each had had long experience with his respective aircraft type. Appendix III contains the aircraft type configuration file.

Master Configuration File Derivation

The master configuration file (Appendix IV) is the data bank upon which the inspection analysis model operates. It enables the model to structure any one of the five helicopter configurations from a single set of generic component types and supplies the input data for the model exercises. The file is essentially a master index of helicopter components grouped by major systems and subsystems. The types of components included in the file are those which have significance in terms of evaluating the impact of alternative inspection schemes on various helicopter subsystems.

Source data for use in creation of the master configuration file was derived from the Army's RAMMIT system and from the Navy's 3-M data system. RAMMIT reports were supplied in printed form and consisted of maintenance life histories, RIADS and MIRFs.

The 3-M data, covering Navy and Marine Corps helicopters comparable to the five Army models being studied, was supplied on magnetic tape and consisted of the original flight, readiness, and maintenance source records (card images).

The 3-M data was used primarily in creation of the master configuration file because, being on magnetic tape, it could be processed and put in a format which facilitated extraction and mathematical treatment. RAMMIT reports were used as backup for the 3-M, especially in areas where the 3-M data either was not suitable for a given application or was inconclusive.

Navy 3-M System Data

The Navy's Maintenance Support Office at Mechanicsburg, Pennsylvania, supplied eight reels of magnetic tape containing maintenance, flight, and readiness activity for the H-1, H-46, H-53 and H-57 series helicopters. The data covered a two-year period ending June 1971 and included the following 3-M record types:

Type 11	Maintenance Transaction
Type 21	Maintenance Transaction
Type 31	Maintenance Transaction
Type 71	Readiness Transaction
Type 76	Flight Transaction

In order to provide a data base which approximated the Army's operating environment as nearly as possible, Marine Corps equivalents to the Army helicopters being studied were selected for processing. A Marine Corps counterpart was available for four of the five types. For the OH-58, data derived from the Navy's TH57A helicopter was substituted. Table II shows the selected data base by record type and model.

3-M Data Processing

A computer program was developed to extract, format and process the data. Figure 8 shows the overall 3-M data processing flow. The initial operation involved creation of separate tape files for each of the four basic helicopter types:

1. UH-1E, AH-1G, AH-1J
2. CH-46D
3. CH-53D
4. TH-57A

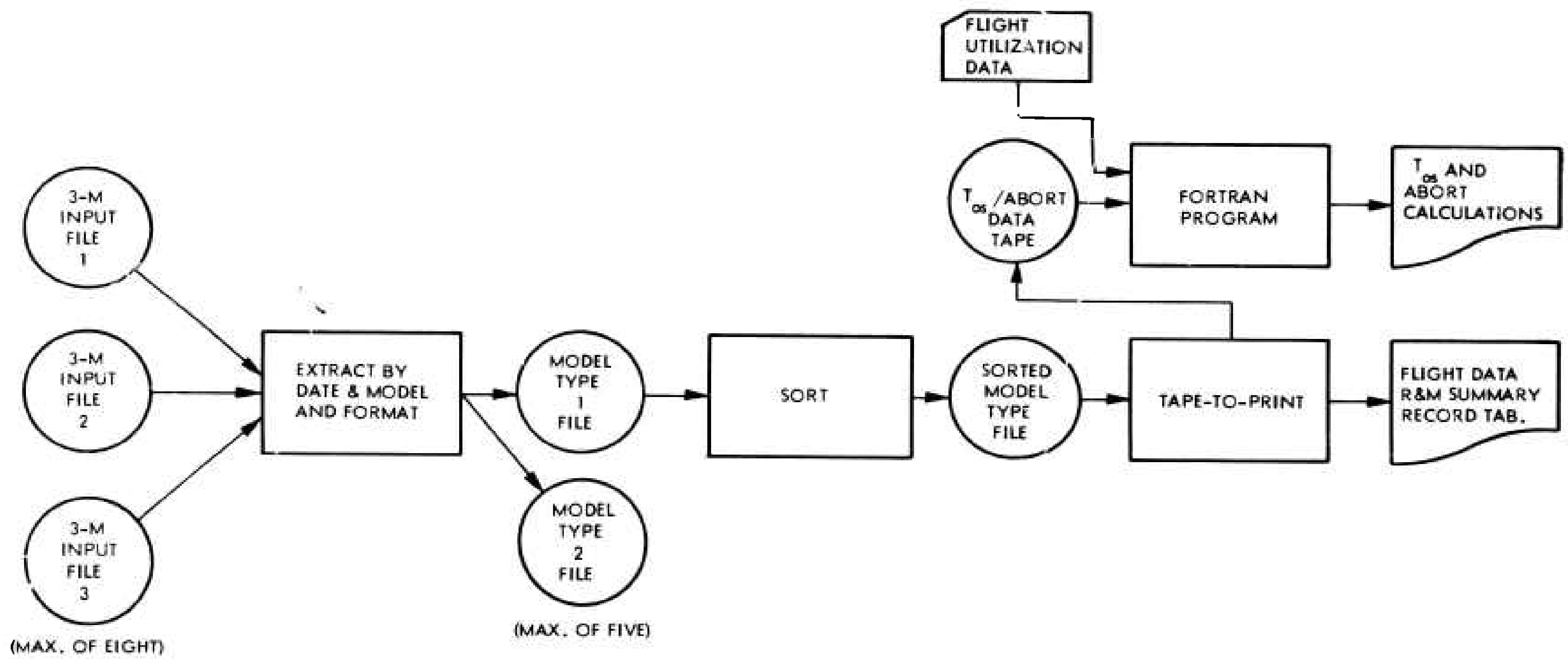


Figure 8. 3-M Data Processing Flow.

Table I. Data Base* - Record Types By Model

Model	Type 11	Type 21	Type 31	Type 71	Type 76
UH-1E	50,373	15,602	16,595	41,520	33,894
CH-46D	84,528	40,017	39,392	50,338	45,706
AH-1G	15,457	5,437	4,384	10,879	10,580
AH-1J	1,958	360	250	2,174	1,255
CH-53D	31,722	9,830	9,614	24,896	12,366
TH-57A	16,909	742	56	9,780	22,703

*Because the files supplied by the Navy lacked data for the last quarter of fiscal year 1971, only fiscal year 1972 data was ultimately included in the final reports.

Simultaneously, the input records were reformatted to condense the files and to speed sorting and processing efficiency. Figure 9 shows the format of the 80-character, 3-M records as received in the original tape files. Figure 10 shows the revised 45-character format produced as a result of the initial file extract runs. The program permits the creation of from one to five output files from any number of the eight input files. Any combination of helicopter model types can be placed on each output file for a defined input time period.

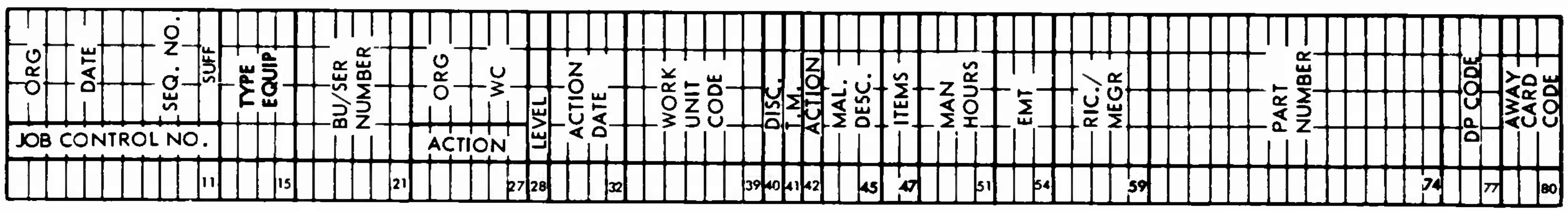
Each model type file was sorted on record positions 5 through 15, yielding a file sequence as follows:

1. Flight records (Type 76) by aircraft serial number

2. Maintenance and readiness records (Types 11, 21, 31 and 71) by work unit code (maintenance records in malfunction code sequence).

The sorted file was then fed to a tape-to-print run which produced reports from which data was derived for the master configuration file. The printed output was produced in three sections:

1. Flight data by aircraft serial number
2. R&M statistical summary
3. Record count by organization



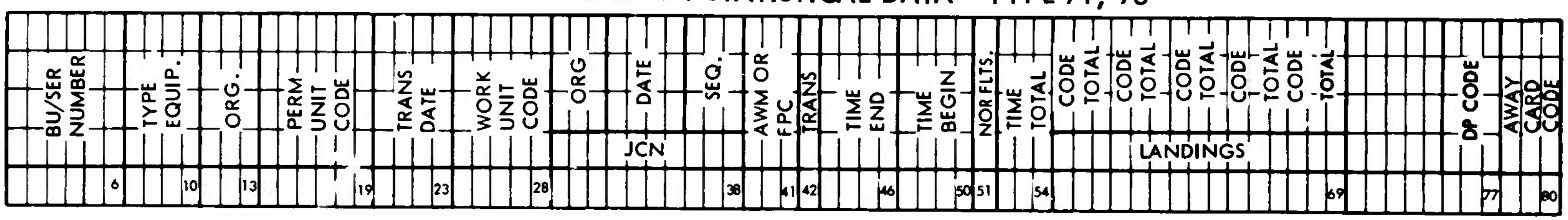


Figure 9. Navy 3-M Record Formats.

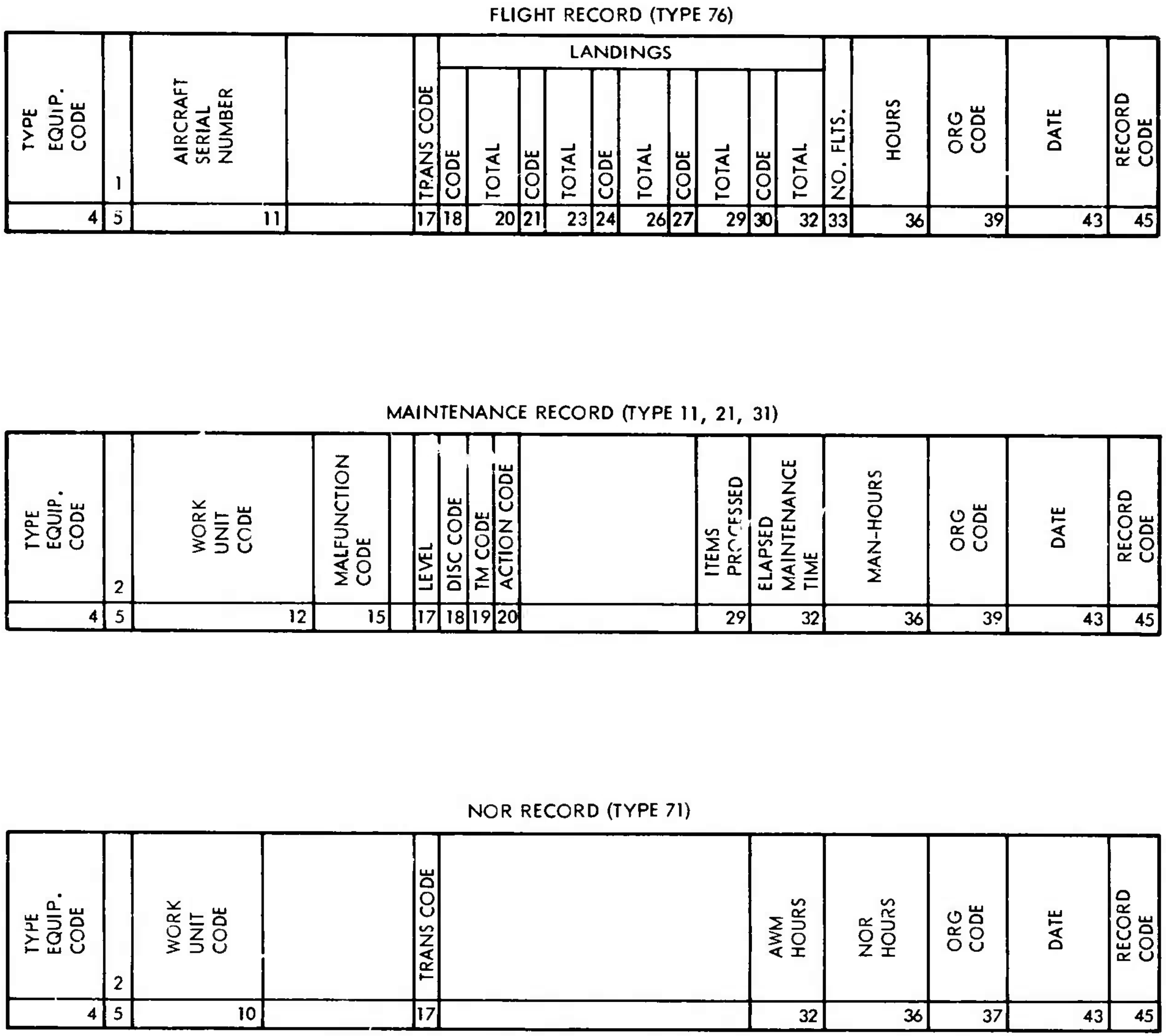


Figure 10. Reformatted 3-M Records.

Another program option provided a tabulation of flight-hours by aircraft serial number and month as required to estimate the average monthly flight utilization for the various models. Concurrently with printing of the R&M statistical summary, an output tape was generated for input to a FORTRAN program which calculated the deterioration start rate (adjusted failure rate), T_{OS} hours, and flight abort probabilities for each work unit code having reported failures during the period.

R&M Statistical Summary

The R&M statistical summary, a sample page from which is shown in Figure 11, provided the historical data from which the master configuration file was derived. In developing the format for this report, major attention was given to facilitating the data reduction task, i.e., the merging/averaging of data from several model reports for input to the master configuration file.

The report is in work unit code sequence. Because code-to-nomenclature files were not provided with the data supplied by the Navy, the report does not include the item nomenclature, although space for it was reserved. There is a two-line print-out of data for each work unit code reported. Total lines are supplied at the component level (for items with a 6th and 7th digit WUC breakout) and at the subsystem, system, and all-systems levels. An explanation of the data elements follows:

MTBF - The mean-time-between-failures for the work unit code. This value is computed by dividing total flight-hours for the model by the number of failures reported (scheduled actions, no-defect actions, cannibalization, etc., having been screened out).

MTBR - The mean-time-between-replacements (for failure) for the work unit code, obtained by dividing flight-hours by the number of reported replacements due to failure.

FAIL RATE - The rate of failure per 10,000 flight-hours.

REPL RATE - The rate of replacements for failure per 10,000 flight-hours.

ORG MTBM - The mean-time-between-maintenance at the organizational level, obtained by dividing flight-hours by the total number of maintenance actions reported at Level 1.

PERIOD - JULY 1970 THRU JUNE 1971 R AND M STATISTICAL SUMMARY REPORT 3M067 02/18/72 PAGE 5
MODELS UH-1E
FLIGHTS = 14663 FLT-HOURS = 30596 LANDINGS = 119230 RATES ARE PER 10,000 FLT-HOURS

WUC/ NOMENCLATURE	MTBF/ MTBR	FAIL/ REPL RATE	ORG/ INT MTBM	ORG/ INT MTTR	ORG/ INT MH/MA	ORG/ INT MH/FH	NORM/ NORS RATE	1ST MODE/ PCNT	2ND MODE/ PCNT	3RD MODE/ PCNT	4TH MODE/ PCNT	WHEN DISCOVERED DIST (PC) GP 1 / GP 5	GP 2 / GP 6	GP 3 / GP 7	GP 4 / GP 8	PRCNT ERROR CAUSE	PRCNT ENVMT CAUSE
1113J	1107	9	1240	.6	.6	5	7	070 28.6	127 10.7	135 10.7	730 10.7	 35.7	 28.6	 10.7	25.0		
1113K	10332	1	10332	.6	.6	1		106 33.3	108 33.3	190 33.3		 66.7	 33.3				
1113U																	
11130	1148	9	1192	1.7	2.3	19	4	190 33.3	106 22.2	020 11.1	230 11.1	 22.2	 44.4	7.4 14.8	11.1		11.1
11131	2818	4	2214	.9	1.3	6		190 36.4	105 18.2	106 18.2	020 9.1	 27.3	 36.4	27.3	9.1		
11132	207 5166	48 2	175 30996	1.1	1.4	81	28 42	190 16.7	127 16.0	070 15.3	730 12.7	1.3 48.7	 10.7	14.7 6.7	17.3 .7		
1113220	30996		30996	2.0	3.0	1		780 100.0							100.0		
11132XX COMPONENT TOTAL	205 5166	49 2	174 30996	1.1	1.4	82	28 42					1.3 48.3	 10.6	14.6 6.6	17.9 .7		
11133	1148	9	1148 30996	1.1 2.0	1.5 2.0	13 1	2 47	127 29.6	070 22.2	020 7.4	105 7.4	3.7 63.0	 14.8	11.1	7.4		
11134			 30996	 8.0	 8.0	 3											
11135	659 2384	15 4	646	1.7	2.1	32	2	020 34.0	190 29.8	070 19.1	127 6.4	2.1 27.7	 44.7	 14.9	10.6		
11136	163 10332	61 1	127 1348	1.1	1.4	114	14 63	127 25.8	730 17.9	135 12.6	190 7.9	 52.1	.5 12.6	11.6 8.4	14.7		
11137	1000 15498	10 1	939 15498	1.5	1.8	20	2 8	070 25.8	127 22.6	106 9.7	190 9.7	 41.9	 16.1	9.7 6.5	25.8		
11138	816 15498	12 1	816	1.7	2.7	33	1	127 26.3	020 23.7	070 13.2	190 13.2	 36.8	 42.1	5.3 5.3	10.5	2.6	
11139	2066	5	1550 30996	1.4 .5	1.4 .5	9	2	070 20.0	105 13.3	230 13.3	730 13.3	13.3 20.0	 33.3	20.0 13.3			13.3
1114A	15498	1	15498	8.0	10.5	7		190 50.0	730 50.0					50.0 50.0			
11140	3100 30996	3	2583 30996	1.8	2.7	10	19	020 40.0	190 20.0	230 20.0	070 10.0	 10.0	 50.0	10.0 20.0	10.0		20.0

Figure 11. R&M Statistical Summary.

INT MTBM - The mean-time-between-maintenance at the intermediate level, obtained by dividing flight-hours by the total number of maintenance actions at Level 2.

ORG MTTR - The mean-time-to-repair at the organizational maintenance level, obtained by dividing the total reported elapsed maintenance time at Level 1 by the number of actions reported.

INT MTTR - The mean-time-to-repair at the intermediate maintenance level, obtained by dividing the total reported elapsed maintenance time at Level 2 by the number of actions reported.

ORG MH/MA - The average man-hours per maintenance action at the organizational level, obtained by dividing the total reported man-hours at Level 1 by the number of maintenance actions reported.

INT MH/MA - The average man-hours per maintenance action at the intermediate level, obtained by dividing the total reported man-hours at Level 2 by the number of maintenance actions reported.

ORG MH/FH - The maintenance man-hours per 10,000 flight-hours at the intermediate level, obtained by dividing Level 2 man-hours x 10^4 by flight-hours.

NORM RATE - The number of hours per 10,000 flight-hours that the work unit code caused the aircraft not to be operationally ready for maintenance.

NORS RATE - The number of hours per 10,000 flight-hours that the work unit code caused the aircraft not to be operationally ready for supply.

Four-High Failure Modes - The 3-M malfunction codes for the four-high failure modes reported and their percentage of contribution to total failures (in descending order).

When Discovered Distribution - The percentage of distribution of failures by "when discovered" within eight groups:

Group 1 - Preflight (Abort)
Group 2 - Inflight (Abort)
Group 3 - Before Flight/Preflight Inspection

Group 4 - Between Flights/Postflight or Daily Inspection
Group 5 - Inflight (No Abort)/Test Flight
Group 6 - Calendar Inspection
Group 7 - Other Inspection
Group 8 - All other

PRCNT ERROR CAUSE - The percentage of total failures caused by maintenance or operator error.

PRCNT ENVMT CAUSE - The percentage of total failures caused by weather or environmental factors.

Although some of the data elements included in the R&M summary did not have direct application to the master configuration file, they were helpful in areas where engineering judgement was needed to interpret or apply the data. At the conclusion of the R&M summary, a tabulation of record types generated by each activity reporting on that model aircraft was printed. This information was of value in appraising the operating environments in which the historical data was compiled.

T_{os} and Abort Data Tape

Keying a program option provided for generating a T_{os} and abort data tape concurrently with printing of the R&M statistical summary. This tape was fed into a FORTRAN program for analysis and creation of a record for each work unit code with a tabulated failure history. Each input record contained the aircraft model code, work unit code, MTBF, and failure distribution by "when discovered" category. Each output record contained the adjusted determination start rate, calculated T_{os}, and mission abort probabilities. A discussion of this analysis is contained in Appendix I. Equations for T_{os} and abort rate calculations are defined in Appendix I.

MCF Data Reduction

R&M statistical summaries, together with T_{os} and abort probability calculations, were produced for the UH-1E, AH-1G/J, CH-46D, CH-53D and TH-57A helicopters.

At the outset of the data reduction task, cross-reference lists were prepared to identify the specific work unit codes to be used as source data for each generic component entry in the master configuration file. Where data for a particular work

unit code was found to vary little from one aircraft model to another, data was drawn from one helicopter model. Since the MCF generic component types represent, in many cases, a general class or group of similar components, it was often necessary to combine data from multiple work unit codes. In cases where data from one aircraft model to another varied appreciably, work unit code sources from two or more helicopter models were used (again involving multiple work unit codes from each for some items). Data from several models was merged and averaged on a weighting basis, using relative failure rates and component quantities. In a few instances, the statistical characteristics of components between aircraft varied too greatly to permit merging of the data. When this situation was encountered, another MCF entry was made to differentiate between the basically unlike components. This is most evident in systems where components labeled "Heavy Helo" are introduced to separate them from the same items on lighter model aircraft.

MCF File Structure

The master configuration file, loaded on magnetic disc for accessing by the computer model, is organized in component code sequence. The file contains 17 major systems, 95 subsystems, and 491 component level entries. Each record in the file is 126 characters long and contains the following elements of data:

Master Configuration File Record Format

	Record Position
Component Code	1-6
Filler	7
Component Nomenclature	8-37
Type Component Code	38
Deterioration Start Rate (per 100,000 flight-hours)	39-42
Failure Mode No. 1	43-45
Mode 1 Percent of Total	46-48
Mode 1 Flight-Readiness Detection (Y/N)*	49
Mode 1 Scheduled Inspection Detection (Y/N)*	50
Failure Mode No. 2	51-53
Mode 2 Percent of Total	54-56
Mode 2 Flight-Readiness Detection (Y/N)*	57
Mode 2 Scheduled Inspection Detection (Y/N)*	58
Failure Mode No. 3	59-61

*Not currently used.

	Record Position
Mode 3 Percent of Total	62-64
Mode 3 Flight-Readiness Detection (Y/N)*	65
Mode 3 Scheduled Inspection Detection (Y/N)*	66
T_{os} Hours	67-69
Abort Probability Without F.R. Inspection	70-72
Abort Probability With F.R. Inspection	73-75
Percent Aborts In-Flight	76-78
Flight-Readiness Inspection Candidate (Y/N)*	79
Flight-Readiness Inspection Method 1	80-81
Flight-Readiness Inspection Method 2	82-83
Flight-Readiness Inspection Time	84-87
Scheduled Inspection Method 1	88-89
Scheduled Inspection Method 2	90-91
Scheduled Inspection Method 3	92-93
Scheduled Inspection Method 4	94-95
Scheduled Inspection Method 5	96-97
Scheduled Inspection Method 6	98-99
Scheduled Inspection Method 7	100-101
Scheduled Inspection Time	102-105
Average Elapsed Repair Time	106-108
Average Repair Man-Hours	109-111
Flight-Readiness Inspection MOS	112-116
Scheduled Inspection MOS	117-121
Repair MOS	122-126

A sample printout from the MCF disc loading program is shown in Figure 12. The system/component breakdown is the same as that shown for the aircraft configuration files. The complete master configuration file is presented in Appendix IV. Appendix V, lists the codes utilized in the master configuration file printouts.

Mission Profiles

A knowledge of the mission profiles of the five helicopter types was required to supply certain elements of input data to the model (utilization and flight duration) and also to aid occasionally in the interpretation and extrapolation of data. Operating and use factors describing the basic missions flown by each helicopter type are shown in Table II.

*Not currently used.

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
110000 AIRFRAME SYSTEM																					
110100 FUSELAGE SUBSYSTEM																					
110101 FRAME/STRINGER	67020	67W20	68G20	67	190 30		731 10		106 8		52	3.7	6.5	23.6	N		0.0	09		6.7	2.9 6.7
110102 SKIN	67020	67W20	68G20	685	730 30		105 13		190 11		29	5.5	13.0	20.1	Y	09	1.50	09		15.0	2.2 3.5
110103 WINDSHIELD	67020	67W20	67020	92	935 37		605 19		070 6		29	3.9	5.5	80.5	Y	09	0.10	09		0.5	3.4 5.8
110104 WINDOW	67020	67W20	67020	14	070 41		190 14		106 7		15	2.4	4.4	99.9	Y	09	0.10	09		0.5	1.4 2.1
110105 ESCAPE HATCH	67020	67W20	68G20	126	070 17		190 14		106 13		101	2.0	5.8	6.8	Y	09	0.10	08 09		1.0	1.9 2.5
110106 HATCH JETTISON MECHANISM	67020	67W20	67020	10	190 50		127 25		780 25		63	0.0	0.0	0.0	N		0.0	08 09		4.0	0.9 0.9
110107 CARGO RAMP	67020	67W20	68G20	410	540 17		780 14		190 13		76	0.7	1.0	99.9	Y	09	0.30	08 09		10.0	2.4 4.5
110108 HORIZONTAL STABILIZER SECTION	67020	67W20	68G20	133	020 33		127 14		780 14		62	2.2	5.1	0.0	Y	09 10	0.20	08 09	10 11	4.0	1.8 2.6
110109 STEP/HAND HOLD	67020	67W20	68G20	7	117 100		0		0		104	0.0	0.0	0.0	N		0.0	09		0.3	0.4 0.6
110110 ANTENNA/SUPPORT	67020	35K20	35K20	45	780 22		301 18		730 15		0	0.0	0.0	0.0	Y	09	0.05	09		0.5	0.9 1.8
110200 COCKPIT/CABIN DOOR SUBSYSTEM																					
110201 SLIDING CABIN DOOR	67020	67W20	68G20	470	127 25		730 13		135 9		24	0.4	0.6	99.9	Y	08 09	0.20	08 09	10	3.0	1.2 1.7
110202 HINGED CABIN DOOR	67020	67W20	68G20	275	070 19		190 16		020 9		37	1.2	1.8	0.0	Y	08 09	0.20	08 09		2.0	1.2 1.4
110203 DOOR STRUT SET	67020	67W20	67020	20	106 33		127 33		932 33		0	0.0	0.0	0.0	N		0.0	08 09		1.0	0.4 0.4
110204 DOOR LATCH MECHANISM	67020	67W20	67020	48	127 26		070 24		106 5		21	2.0	2.6	0.0	Y	08 10	0.10	08		0.5	1.3 1.7

Figure 12 . Inspection Analysis Master Configuration File.

A comparison of the differences in operation of one helicopter type to another is frequently helpful in this respect. Consider, for example, the problem of extrapolating abort data on communications systems from one helicopter type to another. Knowing differences in average mission length is an important factor. A pilot would more likely abort a long mission in the event of radio failure than he would a short mission. Or consider the extrapolation of landing gear failure rate data from one helicopter to another. Here the average number of landings per flight-hour may create the need for adjustments.

The mission profile data was used throughout the study in considerations such as these.

DEVELOPMENT OF THE INSPECTION CONCEPT

Structuring Inspection Schemes

Any inspection system for aircraft must include both the flight-readiness and scheduled types of inspections, since each satisfies unique and important requirements. Flight-readiness checks are required to verify the integrity of aircraft for safe flight. Scheduled inspection are comprehensive examinations for general aircraft condition necessary to preclude deterioration of subsystems beyond safe limits and also to minimize disruption of aircraft operations for emergency repairs.

Structuring Flight-Readiness Inspections

The possibilities for innovation in this area were quite limited since the basic alternatives available included only the preflight, postflight or daily type of inspection (or some combination thereof). The only real flexibility in design of flight-readiness inspections was in the composition of the inspection, i.e., the mix of components designated for each inspection.

Flight-readiness checks were confined generally to examination of those items which are critical to flight safety and/or mission accomplishment and which have more than a negligible probability of failure in flight. Failure mode was an important determinant in the selection of the flight-readiness checklist

TABLE II. BASIC MISSION PROFILES

Basic Mission	AH-1 Armed Escort	UH-1 Personnel Carrier	CH-47 Transport Troops/Cargo	CH-54 Transport Outsized Load	OH-58 Unarmed Observation
Takeoff Weight (% Gross)	91	77	77	90	92
Mission Radius (N MI)	167	149	100	124	147
No. Landings per Mission	1	2	2	2	1
Total Mission Time (Hr)	2.4	2.9	1.4	2.6	3.0
% Ground Runup	1	2	5	3	1
% Taxi	0	0	5	3	0
% Hover	2	3	7	3	1
% Climb/Decend	57	12	10	4	8
% Forward Flight	40	83	73	87	90
Average Flt-Hr Per Month (Combat Environment)	70	80	60	50	70

as well. An item may, for example, have a significant probability of failing in a mode which does not endanger safe operation and a negligible probability of failure in a critical mode. Insofar as mission accomplishment is concerned, the potential mission degradation caused by the occurrence of failure was the important consideration in designing flight-readiness checks.

Having decided upon the type(s) of flight-readiness inspections to include in a given inspection concept, it was necessary to specify the composition of each inspection. Guidelines for deciding whether to include an item in a flight-readiness inspection were as follows:

1. Does the component have more than a negligible probability of failure during flight?

2. Will failure of the component in any significantly occurring failure mode substantially degrade mission performance or cause an abort?

3. Will failure of the component in any significantly occurring failure mode threaten flight safety?

4. Is the failure characteristic such that evidence of deterioration precedes actual failure?

5. Can deterioration or the onset of failure be detected with inspection techniques available to organizational level maintenance?

6. Is there access to the component for inspection without removal of major structural panels and without disturbing other components?

7. Can the inspection task be completed in a reasonably short period of time?

8. Can the inspection be performed by organizational level personnel?

9. Is the component located in proximity to other components which will definitely be subject to inspection anyway?

10. Is it unlikely that inspection will damage the component or make it more vulnerable to failure in future use?

11. Is it unlikely that the ground or flight crew would detect deterioration or failure of the component in the normal course of their duties even if no inspection were performed?

Answering the majority of these questions in the affirmative, especially the first three, indicated that the item was a candidate for flight-readiness inspection. Conversely, a negative response to most questions suggested that the component be excluded from the flight-readiness category. Once a decision had been made to schedule an item for inspection at the flight-readiness level, it was necessary to determine which inspection point (if more than one were included in the concept) was the most appropriate. The following guidelines were used as an aid in this decision.

1. Is evidence of deterioration or failure greatest immediately prior to or after a flight, i.e., use of the component?

2. Is the component likely to be damaged through ground handling or other routine maintenance operations in periods between flight activity, e.g., overnight?

3. Is it acceptable to conduct more than one flight between inspections of the component?

4. Are access and inspection time within reasonable limits for the inspection being considered?

5. Will crew confidence be enhanced by performing the check at this inspection versus another?

Answering these questions helped to decide the most desirable point for a flight-readiness inspection.

Structuring Scheduled Inspections

Regardless of the titles applied to the various inspections comprising the system, it was recognized that all scheduled inspections essentially are described by three parameters: (1) the inspection cycle, (2) the number of inspections within the cycle, and (3) the mix of components slated for each inspection interval. Thus an intermediate, periodic inspection concept can be defined as:

Cycle	100 Hours
Inspections Within Cycle	4 (25-Hour Intervals)
Component Mix	(X at 1,2,3) (X + Y at 4)

and a phased inspection scheme might be defined as:

Cycle	300 Hours
Inspections Within Cycle	6 (at 50-Hour Intervals)
Component Mix	(X at 1,3,5) (X + Y at 2,4) (X + Y + Z at 6)

A calendar inspection system was accommodated by this concept as well by equating the calendar cycle to a flight-hour cycle on the basis of average aircraft utilization. The criteria used to develop component mixes for the various scheduled inspection concepts tested will be described later.

Candidate Inspection Concept Development

Seven basic inspection concepts were specified for evaluation by the Government. These were:

1. The daily, intermediate, periodic concept
2. The daily, periodic concept
3. The tailored inspection maintenance system
4. The phased periodic inspection system
5. The postflight, daily, periodic system
6. The calendar concept
7. The flying-hour, calendar concept.

Although this listing seemed to cover a broad range of options, a comparative analysis of these seven inspection systems revealed inherent similarities. Differences, in some cases, related more to the terminology used to describe the system than to real variations in content. As discussed earlier, each of the systems was definable in terms of inspection cycle, interval, and mix for analysis by the analytical model. In addition to the seven concepts prescribed for the study, a large number of variations were modeled to cover the range of practical alternatives.

Development of Component Inspection Mixes

Seven component inspection mixes were used to test the various scheduled inspection schemes which were evaluated. Some of these were subject to one or more revisions as a result of

analyzing the model outputs. In addition, standard mixes were developed for the preflight, postflight and daily inspections and were used without variation in all inspection schemes to which they applied.

Each mix schedules the components in the master configuration file for one or more of the inspection points in the inspection scheme to which the mix will be applied. Rules used to slot components into scheduled inspection intervals under basic inspection concepts were as follows:

Simple Periodic Scheme

1. All components inspected at each periodic inspection point.

Short-Interval Intermediate/Periodic Scheme

1. All components inspected at the periodic point.

2. Generally, components with T_{OS} between 10 and 60 hours and failure rates greater than $75/10^5$ hours were selected for inspection at the intermediate point.

Longer Interval Intermediate/Periodic Scheme

1. All components inspected at the periodic point.

2. Generally, components with T_{OS} between 10 and 150 hours and failure rates greater than $150/10^5$ hours were selected for inspection at the intermediate point.

Phased Inspection Scheme

1. Components with near zero T_{OS} and comparatively low failure rates were designated for the longest interval inspection.

2. Remaining components were divided into three groups based on failure rates. The group with the highest failure rate was designated for shortest interval inspection, the second group for the next longest, etc.

3. All groups except the one having the shortest interval were further subdivided and phased to make manpower requirements fairly uniform at each inspection point.

4. When subdividing in order to phase groups of components, an effort was made to keep components within the same system together.

Criteria used in developing the flight-readiness component inspection mixes were:

Preflight Inspection - Components scheduled for the preflight inspection are those which:

1. Are critical to aircraft flight safety and/or
2. Are subject to damage between flights and
3. Whose deterioration or failure could be better discerned before rather than after a flight.

Postflight Inspection - Components scheduled for the postflight inspection are those which:

1. Are critical to flight safety and/or

2. Are potentially subject to substantial wear or deterioration during a flight and

3. Whose failure or deterioration could be better discerned immediately after rather than just prior to a flight (as in the case where loss of consumables is an important indicator).

Daily Inspection - Components scheduled for the daily inspection are those which:

1. Met the criteria for the preflight or postflight inspection or

2. Offered a good chance of reducing mission abort occurrences (based on an analysis of failure rate and abort probabilities).

The scheduled inspection and flight-readiness inspection mixes are presented in Appendixes VI and VII. Coding shown in Appendix VI indicates the intervals at which scheduled inspection will occur. For example, code 01 02 denotes a component that will be inspected at every interval (1st, 2nd, 3rd, ...) of any scheme using the mix. Code 04 08 indicates inspection at every fourth

interval. Code 01 07 indicates inspection at the 1st, 7th, 13th,... interval, etc.

Inspection Concepts Considered

Table III is an index of the concepts developed and evaluated in the study. The columns at left indicate the scheme number used and the type of inspection concept. The interval and cycle columns indicate time in hours in all cases except calendar inspection, where times are listed in terms of days. Numbers in the mix column refer to component mixes by identifying number. The methodology used to develop component mixes was described in the previous paragraph. Appendix VI contains the seven mixes developed during the study. A matrix presentation of the selected mix is found in Appendix IX. The "Crew Requirements" columns list the number of personnel assigned for the inspection. For intermediate/periodic inspections two numbers are shown. The first number indicates men assigned to the intermediate inspection and the second, those assigned to the periodic inspection.

Model Application

Table III provides an index of all schemes run through the computer after completion of model validation. Application of the model followed an iterative process of scheme development, computer run, and results analysis until enough schemes were evaluated to allow a substantiative recommendation of the most effective system.

Model runs during the validation period indicated negligible impact upon the results from variations in type or depth of flight readiness inspection. Selection of the type of flight readiness inspection to be recommended is then an item which is better determined through engineering judgement. All indexed runs made utilized the daily inspection component mix defined in Appendix VII as being representative of a responsible flight-readiness inspection.

The 31 model runs listed covered interval time ranges up to 500 flight-hours and cycle time ranges up to 1200 flight-hours. Seven individually derived component inspection mixes were investigated. All basic types of inspection schemes were considered utilizing these ranges of variables.

TABLE III. INSPECTION SCHEDULE INDEX

Scheme No.	Type	Interval	Cycle	Mix	Crew Requirements LOH	UH AH	CH-Medium CH-Heavy
1	Periodic-Hourly	100	100	1	2	3	4
2	Periodic-Hourly	300	300	1	2	3	4
3	Periodic-Hourly	500	500	1	2	3	4
4	Periodic-Calendar	60	60	1	2	3	4
5	Periodic-Calendar	90	90	1	2	3	4
6	Periodic-Calendar	120	120	1	2	3	4
7	Intermediate/Periodic-Hourly	25	100	2	1-2	2-3	2-4
8	Intermediate/Periodic-Hourly	50	100 (600)	3	1-2	2-3	2-4
9	Intermediate/Periodic-Hourly	50	200	4	1-2	2-3	2-4
10A	Intermediate/Periodic-Hourly	100	400	4	1-2	2-3	2-4
10B	Intermediate/Periodic-Hourly	100	400	4	1-1	1-2	1-3
10C	Intermediate/Periodic-Hourly	100	400	4	2-3	2-4	3-5
11	Intermediate/Periodic-Calendar	30	120	4	1-2	2-3	2-4
12	Intermediate/Periodic-Calendar	60	240	4	1-2	2-3	2-4
13A	Phased-Hourly	100	800	5	2	3	4
13B	Phased-Hourly	100	800	5	1	2	3
13C	Phased-Hourly	100	800	5	3	4	5

TABLE III. (Continued)

Scheme No.	Type	Interval	Cycle	Mix	Crew Requirements LOH	Crew Requirements UH AH	Crew Requirements CH-Medium CH-Heavy
14	Phased -Hourly	200	1200	6	2	3	4
20	Periodic -Hourly	200	200	1	2	3	4
21A	Intermediate/Periodic -Hourly	50	200	2	1-2	2-3	2-4
21B	Intermediate/Periodic -Hourly	50	200	2	1-1	1-2	1-3
21C	Intermediate/Periodic -Hourly	50	200	2	2-3	2-4	3-5
22A	Phased -Hourly	100	800	7	2	3	4
22B	Phased -Hourly	100	800	7	1	2	3
22C	Phased -Hourly	100	800	7	3	4	5
22D	Phased -Hourly	100	800	7	4	5	6
23A	Phased -Hourly	100	600	6(a)	2	3	4
23B	Phased -Hourly	100	600	6(a)	1	2	3
23C	Phased -Hourly	100	600	6(a)	3	4	5
24	Phased -Hourly	200	1200	6(a)	2	3	4
25	Periodic -Hourly	50	50	1	2	3	4

Option C model outputs provide an overview of the complete results from modeling of each candidate scheme. A one-page summary of the key factors of the results is printed out. Copies of Option C summary printouts for each of the 31 model runs are provided in Appendix VIII.

Figure of Merit for Concept Selection

Analysis of results from initial model runs made after the model was validated allowed the development of a figure of merit for ranking the results from different inspection scheme inputs. During this development, however, it became apparent that a figure of merit which attempted to weight the many outputs from the modeling into a single measure of effectiveness produced a complex equation. Such equations proved difficult to interpret and included a large number of weighting numbers which could appear to be arbitrary. It was decided to develop a simplified figure of merit which would effectively serve to select the most promising schemes and to use engineering judgement in the final selection to assure consideration of all factors including those difficult to quantify.

The simplified figure of merit used to select those schemes to be considered for further analysis was calculated from mission reliability and availability results from the first level modeling of candidate inspection schemes. Mission reliability is an indicator of both safety and aircraft reliability, and availability is the traditional measure of aircraft "up-time". Thus three major factors in evaluating an inspection scheme were considered in the figure of merit.

Figure 13 is a typical plot of reliability and availability versus inspection period derived from modeling results. The figure illustrates changes in availability and reliability for utility type aircraft inspected by periodic inspection schemes of varying interval length. For short inspection intervals, the reliability of the aircraft is high but the availability is low due to downtime for inspections. An increase in the length of the inspection interval results in a rapid increase in availability until a knee in this curve is reached. For larger intervals, very little availability is gained by further increasing the period since most of the downtime is then based on failures and unscheduled maintenance between inspections.

Model runs were made for inspection intervals below 50 hours, but the outputs have not been plotted. In the range below 50 hours, the effect of failures caused by inspections themselves

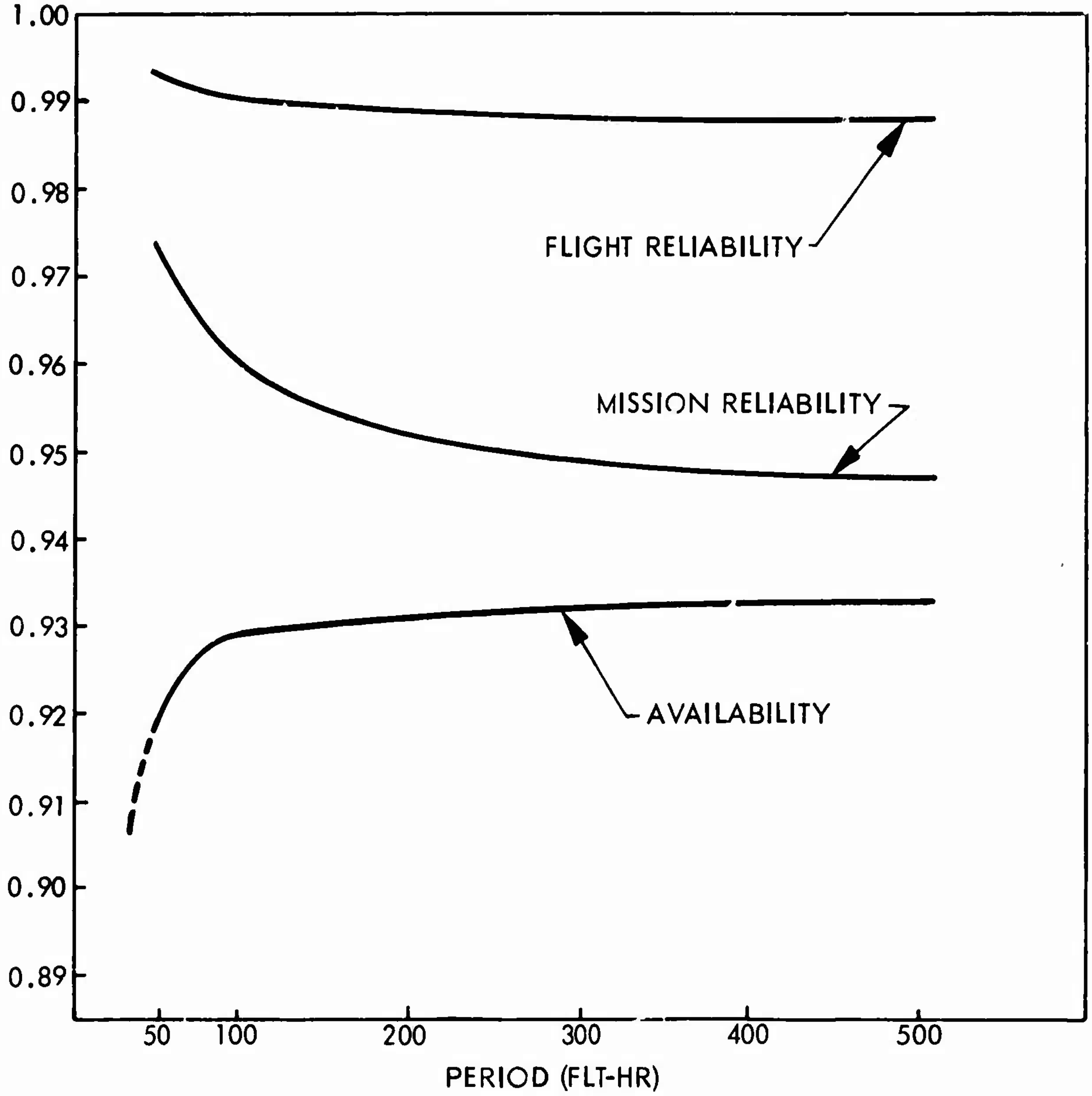


Figure 13. Reliability and Availability Versus Inspection Period (Utility Type Helicopter Periodic Inspections).

(inspection-induced failures) becomes more significant, tending to make short intervals even less attractive than is shown by the model outputs. (This effect is negligible for the range of inspection intervals considered to be among the realistic alternatives.)

The inspection scheme figure of merit for an individual aircraft type was calculated using the equation below:

$$\text{Aircraft Type Figure of Merit} = \frac{3\ (\text{Availability}) + \text{Mission Reliability}}{4}$$

This equation is the result of analysis of baseline model runs, such as those plotted in Figure 13. It was chosen to optimize at the breakpoint in the availability curves. The equation does not infer a weighting of availability as three times as important as mission reliability since the most promising schemes will be selected based upon comparative figures of merit. Note that over the flat part of the availability curve, differences between figures of merit will be influenced most heavily by mission reliability since deltas in figure of merit caused by availability will be small (three times zero equals zero). In the area of the curve where availability is rapidly increasing, the figure of merit equation causes availability to override mission reliability in importance. This relationship, then, results in highest figures of merit for schemes with the highest reliability and near-maximum availability.

The overall figure of merit for each scheme was calculated by taking a weighted average of the aircraft type figures of merit. Two sets of relative weights were used. The first was a weighting factor based on the relative quantity of each aircraft type in the inventory. The other was based on the relative numbers of scheduled man-hours per inspection cycle for each aircraft. These weighting factors and their combined weights are shown in Table IV. In the table the two sets of relative weight for each aircraft type are shown in the quantity weight and man-hour weight columns. The combined weight column shows the results of combining the two relative weighting factors. The combined weight numbers are the result of multiplying the quantity and man-hour weights for each aircraft type and normalizing the results by dividing each product by the smallest of the five quantity weight/man-hour weight products.

TABLE IV. AIRCRAFT WEIGHTING FACTORS			
Aircraft Type	Quantity Weight*	Man-Hour Weight**	Combined Weight
LOH	21	1	8.1
UH	56	1.3	28
AH	7	1.4	3.8
CH-Medium (CH-M)	6	2.5	5.8
CH-Heavy (CH-H)	1	2.6	1

*These factors based upon present inventory.
**Factors derived from 100 hour periodic inspection baseline runs.

Thus, the overall figure of merit, FM, is given by:

$$FM = \frac{8.1(FM[LOH])+28(FM[UH])+3.8(FM[AH]) \ +5.8(FM[CH\text{-}M])+FM[CH\text{-}H]}{46.7}$$

The selection of the recommended scheme makes use of the figure of merit for screening the different concepts. Additional engineering analysis then considers, for schemes with highest figure of merit, other factors such as comparative cost and uniformity of work distribution in the selection of the most effective concept.

Inspection Concept Comparison Analyses

Computer modeling for each of the inspection schemes listed in the inspection scheme index of Table III combined with engineering analysis of critical contributing factors allowed the selection of the recommended inspection concept for Army helicopters. The paragraphs which follow describe these figure-of-merit and engineering analyses. The scheme recommended as the most effective inspection scheme applicable to Army helicopter systems is selected, and this recommendation is supported.

Figure-of-Merit Screening Analysis of Results

The ideal inspection concept would have the following characteristics:

- High Mission Reliability
- High Aircraft Availability
- Low Maintenance Cost
- Low Unscheduled Maintenance Frequency

Analysis of the model output data confirms that any chosen concept must result from a direct tradeoff between these goals. The previous paragraph described the calculation of a figure of merit used to screen out the best inspection schemes. This figure of merit emphasizes the schemes with the highest mission reliability possible at near-maximum availability. Consideration of cost (MH/FH), unscheduled maintenance frequency, and other factors such as the ability to schedule maintenance and avoid workload peaks is left for engineering evaluation of those schemes showing highest figure of merit.

Table V provides a figure-of-merit summary of the basic inspection schemes evaluated. Aircraft type figures of merit for each model and combined figures of merit are shown. The data indicates consistent superiority of intermediate/periodic and phased schemes over periodic type inspection. It is also apparent that, whereas figure of merit decreases as interval time increases for periodic inspections, for intermediate/periodic and phased schemes there is first an increase and then a decrease in merit. Highest figures of merit occur when the interval is from 50 to 100 hours and the cycle is 200 hours or greater in an intermediate/periodic or phased inspection. These data then indicate that the recommended inspection scheme should have components critical to flight safety and those with high failure rates inspected after 50 to 100 flight-hours, with the remaining components inspected at some point or points in time over a 200-hour or greater cycle.

Figures 14 through 17, for the UH and CH-Medium, confirm that for the small sacrifices in flight reliability to achieve the breakpoint in availability inherent in the figure of merit (see Figure 13), the other characteristics involved in the tradeoff are also better served by increasing interval times to 50 to 100 hours and cycle times to 200 hours or beyond. The curves also indicate that the major savings available in cost (total MH/FH) are achieved through these increases in interval and cycle times while incurring bearable increases in unscheduled maintenance requirements. Increasing interval times also serves to lessen the impact of inspection-induced failures.

TABLE V. FIGURE-OF-MERIT SUMMARY

Scheme No.	Inspection Type	Interval	Cycle	Figure-of-Merit Aircraft Type LOH	UH	AH	CH-M	CH-H	Combined
1	Periodic-Hourly	100	100	0.9505	0.9367	0.9415	0.9257	0.9165	0.9377
2	Periodic-Hourly	300	300	0.9527	0.9362	0.9387	0.9232	0.9105	0.9371
3	Periodic-Hourly	500	500	0.9532	0.9365	0.9382	0.9220	0.9087	0.9372
4	Periodic-Calendar	60	60	0.9510	0.9367	0.9402	0.9250	0.9165	0.9376
5	Periodic-Calendar	90	90	0.9525	0.9367	0.9392	0.9240	0.9130	0.9376
6	Periodic-Calendar	120	120	0.9530	0.9362	0.9390	0.9235	0.9117	0.9373
7	Intermediate/Periodic-Hourly	25	100	0.9452	0.9385	0.9417	0.9330	0.9257	0.9390
8	Intermediate/Periodic-Hourly	50	100 (600)	0.9510	0.9407	0.9470	0.9315	0.9242	0.9415
9	Intermediate/Periodic-Hourly	50	200	0.9532	0.9430	0.9482	0.9337	0.9257	0.9437
10	Intermediate/Periodic-Hourly	100	400	0.9545	0.9407	0.9445	0.9295	0.9185	0.9416
11	Intermediate/Periodic-Calendar	30	120	0.9550	0.9392	0.9485	0.9375	0.9332	0.9424
12	Intermediate/Periodic-Calendar	60	240	0.9545	0.9370	0.9420	0.9297	0.92[illegible]2	0.9392
13	Phased-Hourly	100	800	0.9520	0.9387	0.9420	0.9260	0.9152	0.9392
14	Phased-Hourly	200	1200	0.9530	0.9372	0.9397	0.9240	0.9117	0.9380
20	Periodic-Hourly	200	200	0.9520	0.9362	0.9395	0.9237	0.9117	0.9372
21	Intermediate/Periodic-Hourly	50	200	0.9512	0.9407	0.9430	0.9302	0.9202	0.9410
22	Phased-Hourly	100	800	0.9552	0.9415	0.9452	0.9302	0.9192	0.9423
23	Phased-Hourly	100	600	0.9522	0.9390	0.9430	0.9277	0.9172	0.9398
24	Phased-Hourly	200	1200	0.9530	0.9372	0.9397	0.9240	0.9117	0.9380

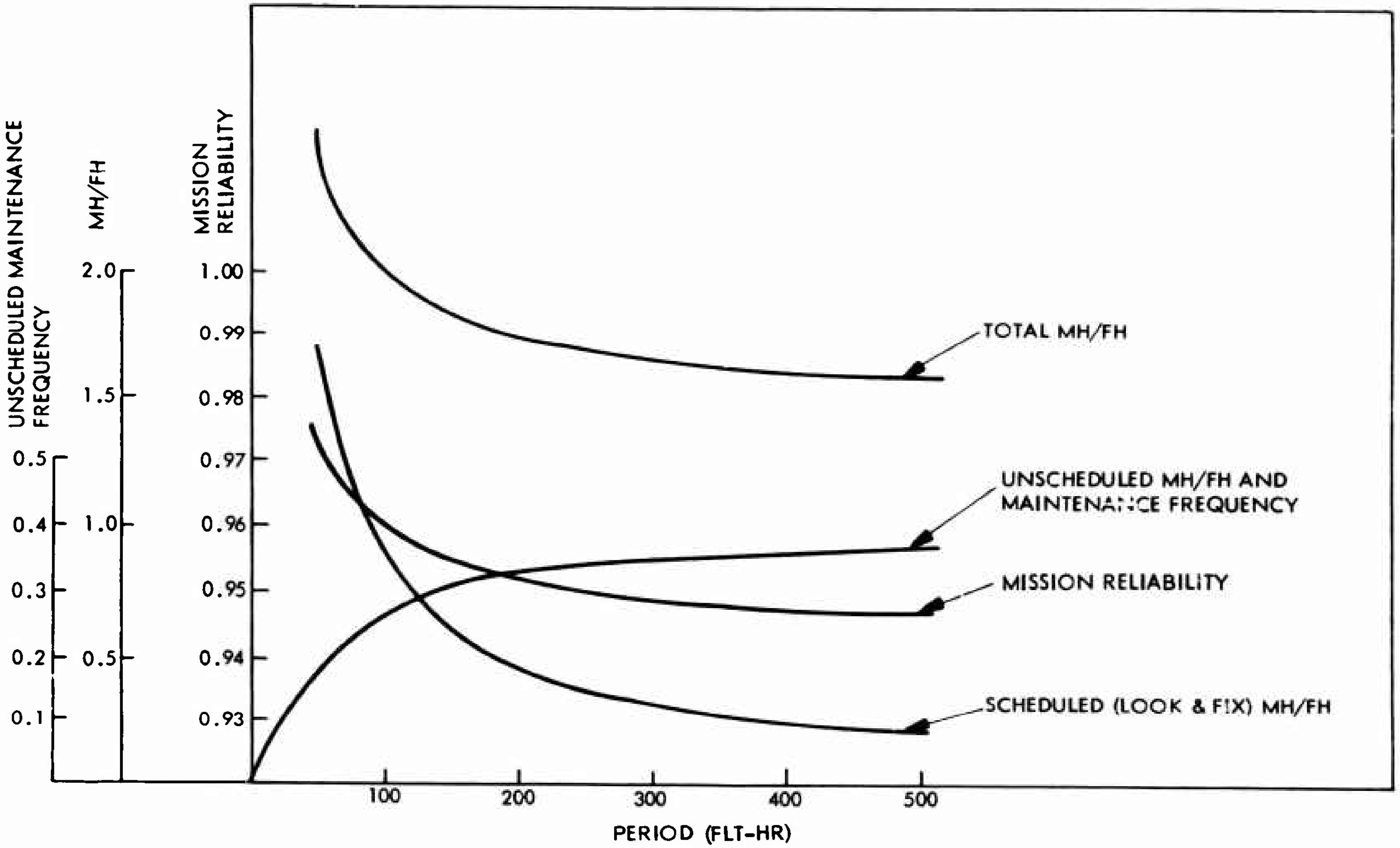


Figure 14. Utility Type Helicopter Periodic Inspection Concept

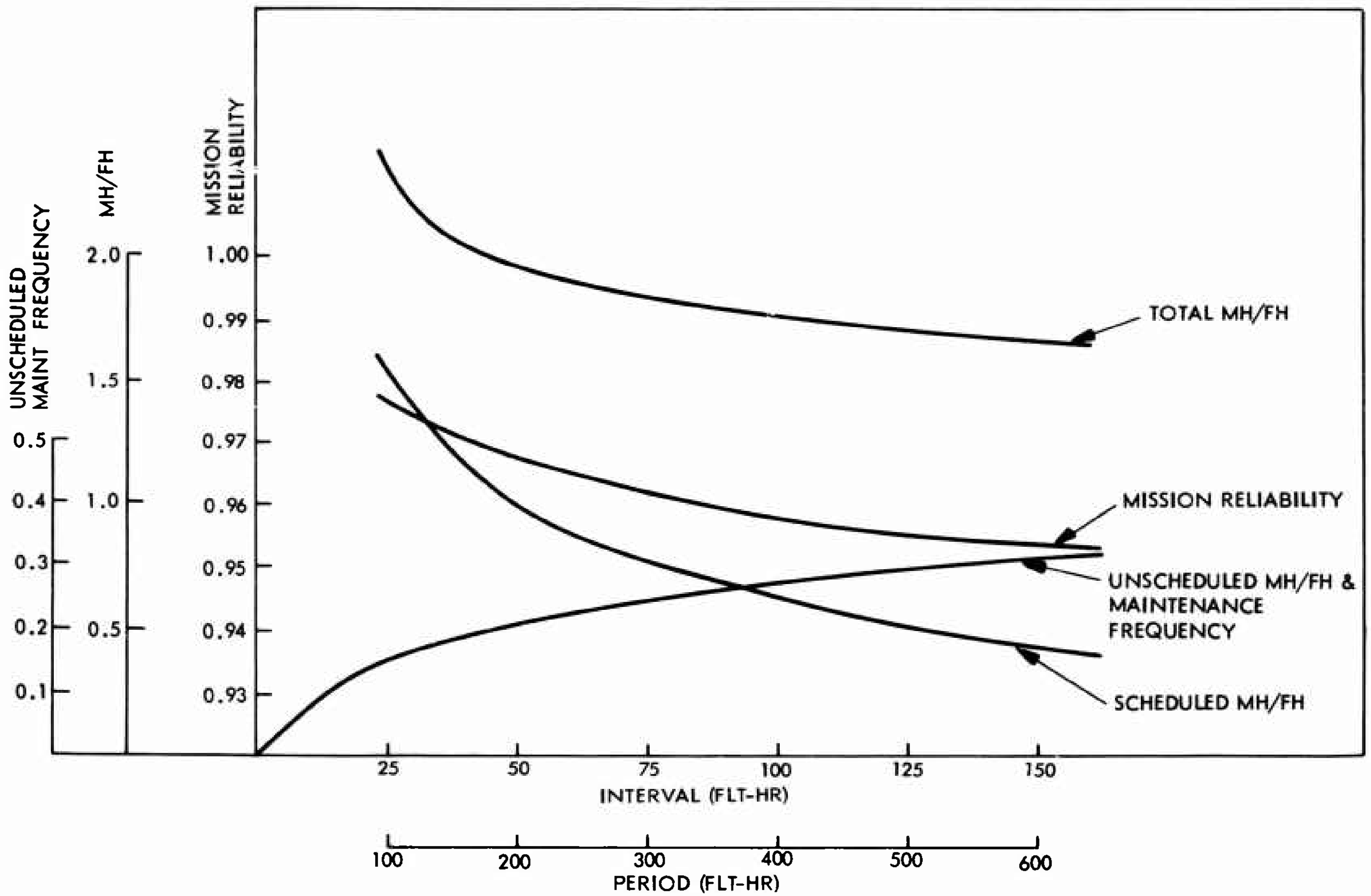


Figure 15. Utility Type Helicopter Intermediate/Periodic Inspection Concept.

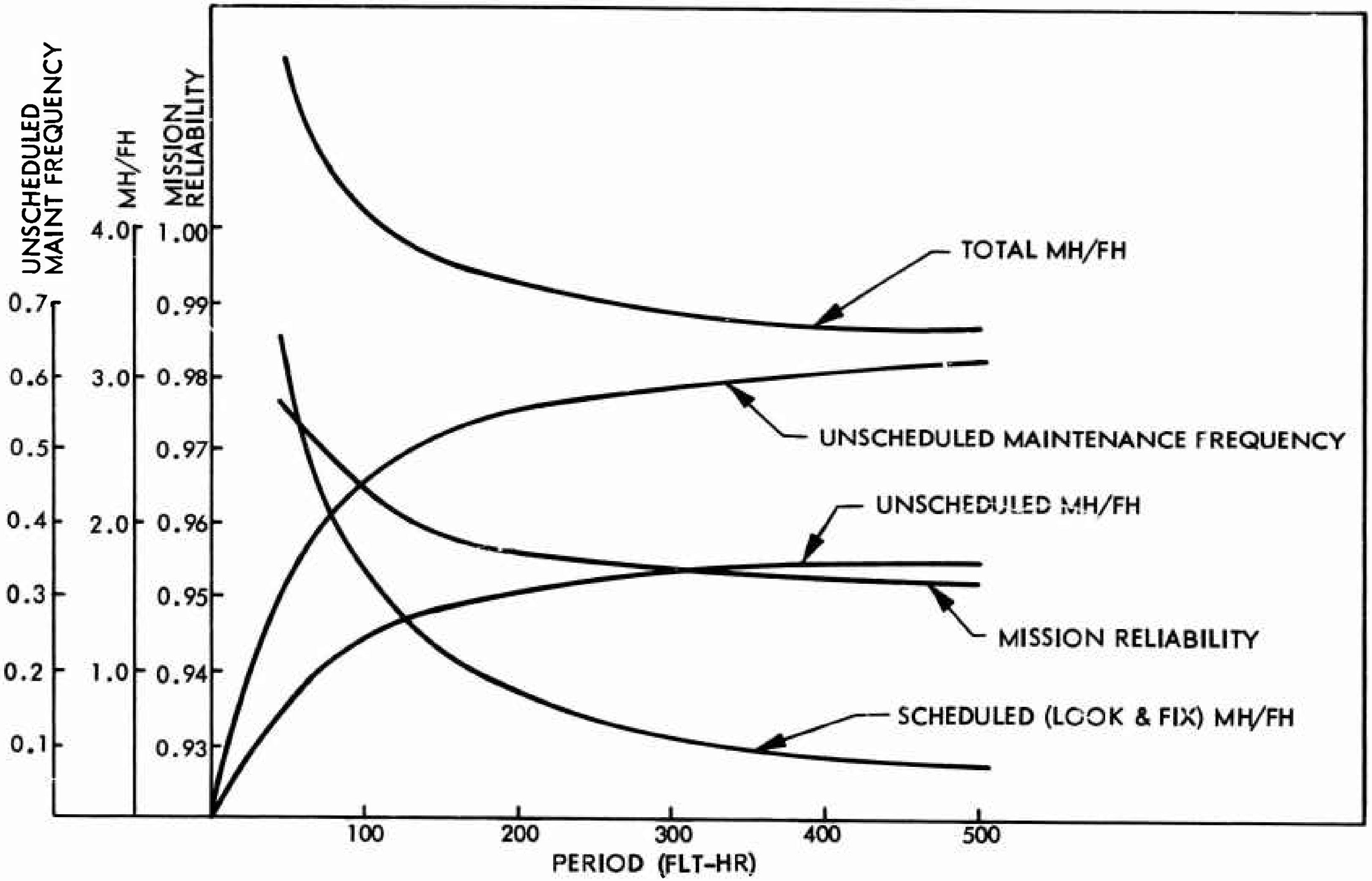


Figure 16. CH-Medium Helicopter Periodic Inspection Concept.

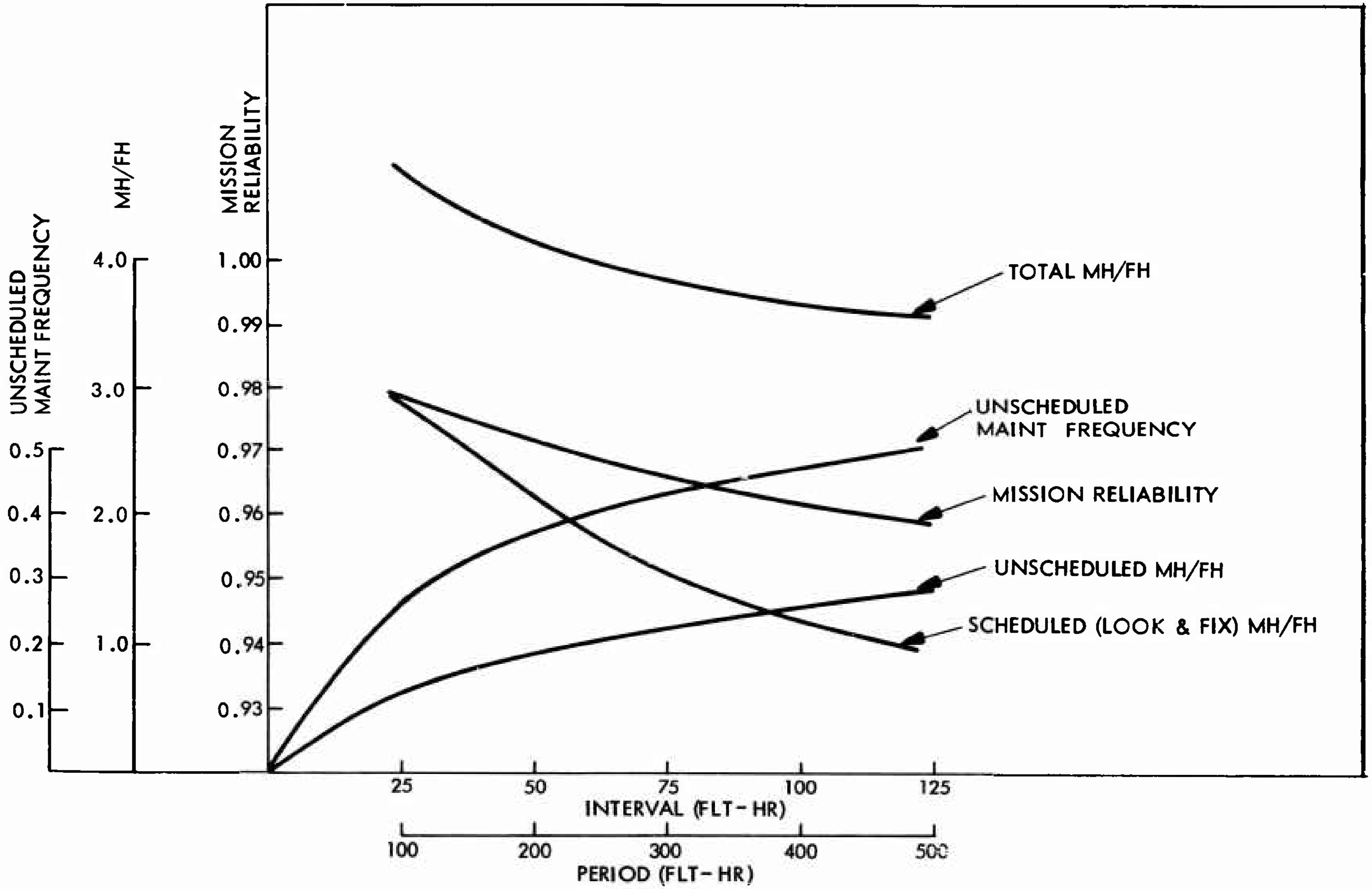


Figure 17. CH-Medium Helicopter Intermediate/Periodic Inspection Concept.

Of the candidates evaluated, the most promising based upon the screening analysis are schemes 9, 11, and 22, which display the highest combined figures of merit (0.9437, 0.9424, and 0.9423, respectively). These schemes then are those to be considered for final selection as the recommended concept.

Evaluation of Most Promising Concepts

The schemes remaining are of three different types: intermediate/periodic-hourly (9), intermediate/periodic-calendar (11) and phased-hourly (22). Calendar and phased type inspections are both outgrowths of the intermediate/periodic-hourly scheme, but there are important advantages and disadvantages between them.

A calendar inspection system offers a scheduling advantage over systems based on flight-hour cycles. Under the calendar concept, inspection schedules can be planned well in advance, avoiding the queueing problems created by irregular aircraft use and aircraft arriving at inspection points in comparatively random fashion.

However, the calendar system suffers from irregular flight utilization, causing aircraft with low use to be overinspected while those with peak use are underinspected. Moreover, the benefits of calendar scheduling can be maintained only if aircraft are inducted into calendar checks when they are due regardless of the calendar time expired since the aircraft completed its last check. When delays (parts, major repairs, etc.) cause an aircraft to remain in calendar check for prolonged periods, the calendar time over which it is next available for use by the operator is accordingly shortened. This situation inevitably produces lower overall aircraft availability and consequently higher operating costs (a characteristic of the calendar concept which could not be numerically assessed by the model).

Although nearly all systems based on an hourly cycle can be adapted to a calendar interval, the inherent disadvantages to calendar scheduling require that each application be considered individually, including such factors as the size of the operating unit, average utilization, flight priorities, inspection turnaround time, etc.

Phased inspection concepts offer several inherent advantages over the intermediate-periodic schemes. The most significant is less severe disruptions to the aircraft operating schedule since

the downtime at each inspection point is shorter than for a periodic inspection. Each inspection point represents a smaller, more manageable work package. Greater flexibility is also offered in design of inspection checklists, which can be made to cover selected areas of the helicopter at each interval. The range of specialist skills, test equipment, etc., required at any one inspection point can therefore be reduced, as can the number of personnel-induced problems created by the inspection function. For a long phased cycle, components with high reliability or long deterioration times can be stretched to longer inspection intervals.

Figures 18, 19, and 20 are Model Option C output summary matrices for the three most promising candidate schemes. Comparison of the data from these charts indicates only slight differences in flight and mission reliability and availability between the schemes. For example, for the UH and CH-Medium, we have the following indicators:

UH

Scheme	Flight Reliability	Mission Reliability	Availability
9	0.992	0.970	0.927
11	0.990	0.961	0.931
22	0.989	0.958	0.936

CH-MEDIUM

Scheme	Flight Reliability	Mission Reliability	Availability
9	0.992	0.972	0.908
11	0.992	0.969	0.910
22	0.990	0.961	0.920

Review of these figures confirms the need for the final concept selection to be based upon other factors.

A comparison of unscheduled maintenance man-hours per flight-hour for the three schemes indicates a slight advantage to the intermediate/periodic-hourly concept (scheme 9). For example, in the case of the UH, 0.465 unscheduled MH/FH are required compared to 0.620 MH/FH for the calendar concept (scheme 11) and 0.687 for the phased inspection (scheme 22).

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.993	0.992	0.982
Mission Reliability	0.975	0.970	0.973	0.972	0.931
Availability	0.935	0.927	0.934	0.908	0.912
Norm - Scheduled	0.043	0.043	0.038	0.053	0.048
Norm - Unscheduled	0.021	0.030	0.028	0.039	0.040
MH/FH - Flt-Readiness Insp	0.303	0.440	0.519	1.185	1.072
MH/FH - Scheduled - Look	0.493	0.707	0.682	1.240	1.340
MH/FH - Scheduled - Fix	0.343	0.462	0.555	0.936	0.961
MH/FH - Unscheduled Maintenance	0.379	0.465	0.494	0.849	1.024
MH/FH - Total	1.517	2.074	2.251	4.210	4.397
Unscheduled MTBM	6.1	4.9	4.7	2.9	2.4
	******************************				
Average Utilization	70.	80.	70.	60.	50.
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

Figure 18. Model Option C Summary Matrix - Inspection Scheme 9.

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.990	0.991	0.992	0.982
Mission Reliability	0.970	0.961	0.968	0.969	0.931
Availability	0.942	0.931	0.937	0.910	0.912
Norm - Scheduled	0.032	0.028	0.029	0.045	0.048
Norm - Unscheduled	0.026	0.040	0.034	0.045	0.040
MH/FH - Flt-Readiness Insp	0.307	0.448	0.526	1.191	1.072
MH/FH - Scheduled - Look	0.359	0.456	0.496	1.042	1.340
MH/FH - Scheduled - Fix	0.273	0.318	0.449	0.828	0.961
MH/FH - Unscheduled Maintenance	0.452	0.620	0.604	0.965	1.024
MH/FH - Total	1.391	1.843	2.075	4.027	4.397
Unscheduled MTBM	5.2	3.9	3.9	2.6	2.4
	******************************				
Average Utilization	70.	80.	70.	60.	50.
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

Figure 19 . Model Option C Summary Matrix - Inspection Scheme 11.

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.952	0.936	0.940	0.920	0.923
Norm - Scheduled	0.017	0.019	0.017	0.020	0.018
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.284	0.372	0.357	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.327	1.768	1.953	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7
	******************************				
Average Utilization	70.	80.	70.	60.	50.
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

Figure 20. Model Option C Summary Matrix - Inspection Scheme 22A.

This advantage is heavily outweighed, however, when a cost comparison is made between the schemes. As noted on page 5, total maintenance man-hours per flight-hour was used as the measure of cost. This excludes overhead, administrative, material and other logistics costs, but these, for the most part, vary directly with labor demand. Using direct labor as the single measure of cost allows uncomplicated comparison of inspection schemes.

In the cost comparison of the three schemes, inspection scheme 22 shows a clear advantage over its competition. Costs are consistently lower for all aircraft types. A summary for the UH and CH-Medium aircraft is presented below:

Scheme	UH Total MH/FH	CH-Medium Total MH/FH
9	2.074	4.210
11	1.843	4.027
22	1.768	3.659

These figures indicate cost savings of 4.2 percent for scheme 22 over scheme 11 in maintaining UH type aircraft and a 10 percent saving advantage in maintaining the CH-Medium. When comparing schemes 22 and 9, scheme 22 appears to even greater advantage. For the UH and CH-Medium, savings of 17 percent and 15 percent, respectively, are indicated.

For clarity in considering relative cost, Figures 21 and 22 are presented. The figures show data points of cost versus mission reliability for UH and CH-Medium aircraft types for all basic schemes evaluated in the study. The figures clearly indicate the comparative disadvantage of the periodic inspection concepts relative to other schemes. They also indicate the small sacrifice in mission reliability that is involved in achieving the cost savings available from inspection scheme 22, the phased inspection concept.

Recommended Inspection Concept

The 100-flight-hour interval, 800-flight-hour cycle phased inspection scheme is recommended as the most effective inspection concept for the five basic helicopter types considered. This selection is based on the analysis of modeling data and by the qualitative advantages of phased inspection discussed in the previous paragraph. Phased inspection also provides a smooth,

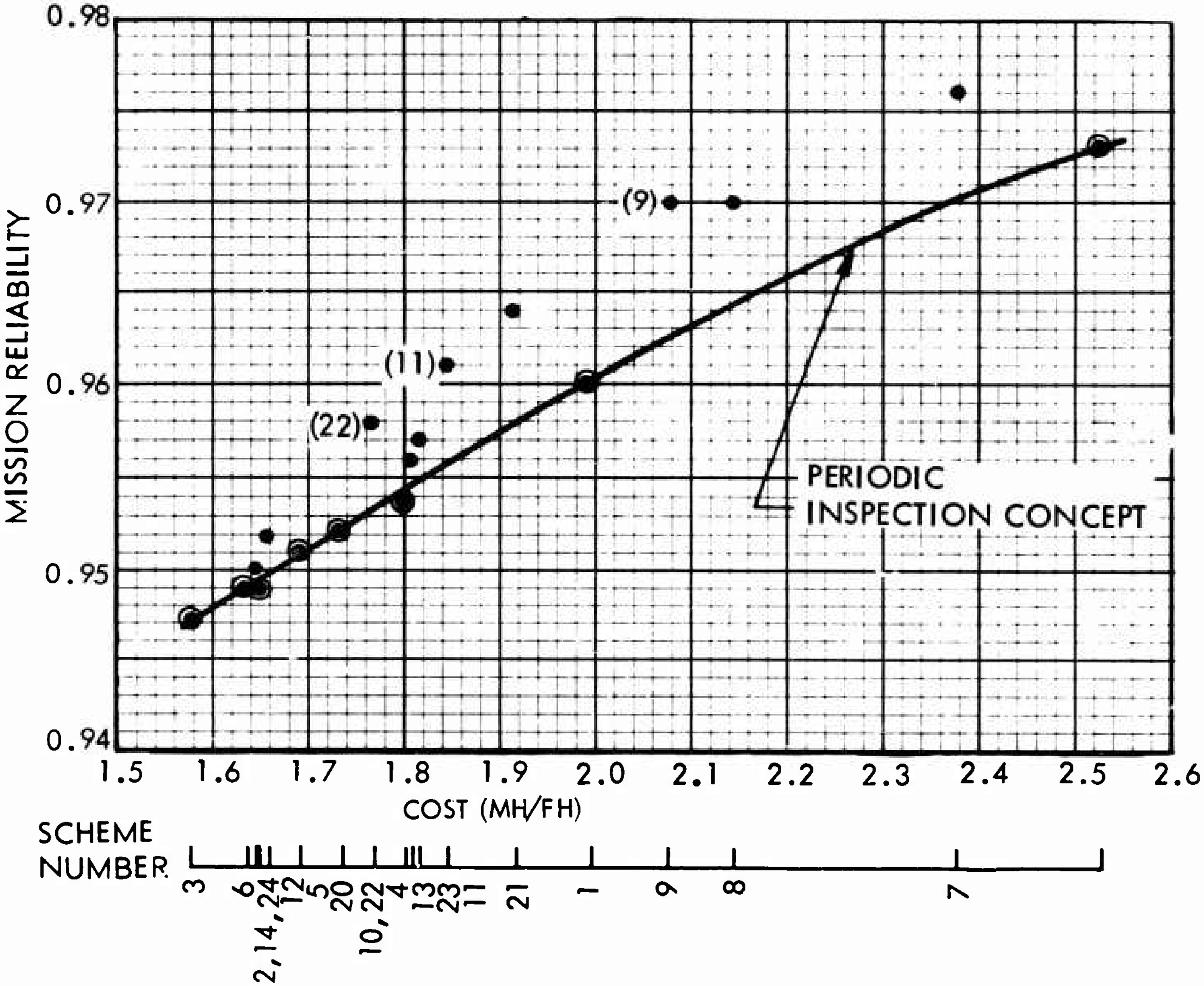


Figure 21. Utility Type Helicopter Mission Reliability Versus Cost.

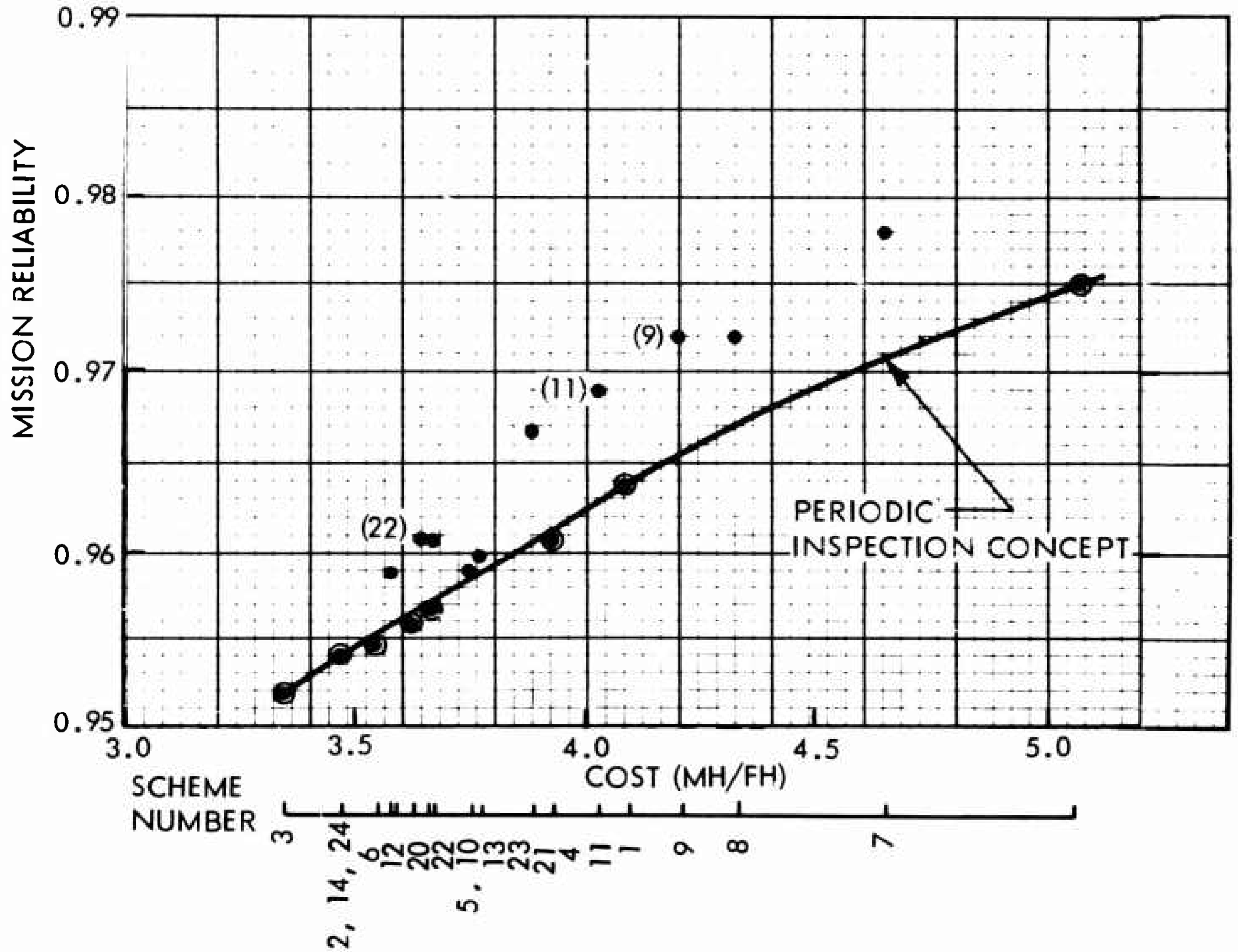


Figure 22. CH-Medium Helicopter Mission Reliability Versus Cost.

manageable workload and effective usage of higher personnel skill levels.

As noted in the discussion of model application above, the modeling indicated little difference from choice of flight-readiness inspection type. In all model runs, a responsible daily inspection was included as defined in Appendix VII. Change from the present Army concept of daily inspections does not seem warranted since it is the quality of the flight-readiness inspection and the list of items to be inspected which is of primary importance, not the inspection nomenclature which is used. No change is therefore recommended from the present practice of continuous daily inspection by the crew chief assigned to each aircraft.

SELECTED INSPECTION CONCEPT REVIEW AND DEVELOPMENT

After selection of the 100-800 phased hourly inspection as the recommended concept, further analyses were performed to refine and develop the concept. These analyses examined the following areas:

1. Inspection crew sizes for scheduled inspections

2. Comparison of the recommended concept with the Army helicopter inspection desired characteristics

3. Review and refinement in the phasing of the generic component inspection scheduling for the selected concept

4. Preparation of an applicable checklist for technology review of future aircraft designs.

The paragraphs which follow describe the work performed and the results of these analyses.

Inspection Crew Sizes

Modeling run outputs utilized in the analyses which selected the recommended concept considered the inspection crew sizes for each of the typical aircraft to be a constant. This avoided misconceptions in comparing figures of merit for different schemes since crew size variation impacts availability without affecting reliability in the modeling equations. Crew size also is of lesser importance than the other factors considered. Thus,

all model run outputs used for calculating figures of merit were based upon a standard crew size for all inspections as shown below.

Aircraft Type	Standard Crew Size
LOH	2
UH	3
AH	3
CH-Medium	4
CH-Heavy	4

As shown in Table III, model runs were made which investigated the effect of inspection crew size variations on aircraft availability. Results of model runs for the recommended inspection scheme are given in Table VI below.

TABLE VI. CREW SIZE AND AVAILABILITY FOR SCHEME 22

A/C Type	Inspection Crew Size	Availability
LOH	1	0.941
	2	0.952
	3	0.955
	4	0.957
UH	2	0.929
	3	0.936
	4	0.939
	5	0.940
AH	2	0.934
	3	0.940
	4	0.942
CH-Medium	3	0.916
	4	0.920
	5	0.923
	6	0.924
CH-Heavy	3	0.919
	4	0.923
	5	0.926
	6	0.927

For any given inspection period, the downtime is a function of the amount of looking and the amount of fixing necessary. Increasing the inspection crew size can not decrease the downtime below the amount of time needed to perform the necessary preventive repairs. Thus, as inspection crew size is increased, a marginal increase in availability is achieved. Considering this marginal contribution as shown in Table VI and the desired clock hours of downtime per 100 flight-hours results in recommendation of the inspection crew sizes tabulated below.

A/C Type	Inspection Crew Size	Average Inspection Downtime (hr)
LOH	2	18
UH	2	23
AH	2	23
CH-Medium	3	29
CH-Heavy	3	32

Review of Army Helicopter Inspection Desired Characteristics

The Army's stated goals for helicopter inspection systems were a factor throughout the analyses. In the paragraphs which follow, each goal is discussed individually and, where study results indicate a need, revisions to these desired characteristics are recommended.

1. Same for All Aircraft - The concept recommended in the study is a single inspection scheme recommended as best for all five typical helicopter types. The selection was made using mathematical modeling and engineering judgement which considered a "composite" helicopter configuration file for the five types as the data base.

   This approach, then, used this desired characteristic as a base line and the results coincide with the characteristic. Separate analyses for each typical aircraft type might have indicated different schemes as best for different types if mathematical modeling had been used as the only criterion for selection. Engineering analysis, however, was used as a supplement to the model in the decision.

   Review of modeling results by aircraft type and the study engineering analyses indicates the phased inpsection to be the best scheme for all five aircraft types.

2. Accomplished Predominately by Crew Chief - Modeling during the study considered the impact of varying scheduled inspection crew size upon aircraft downtime. However, as noted in the earlier discussion of crew sizes, minimum crew size was considered to be of secondary importance in selecting the most effective inspection concept compared to safety, reliability, availability and cost. Study results indicate crew sizes of two or three men (dependent upon aircraft type) to be required to achieve acceptable aircraft availability and to achieve inspection clock hours for aircraft type (item 4 below) which are in best agreement with the desired characteristics in that area. It should also be noted that these crew sizes greater than one man are required even though inspection cycle times longer than those presently defined are a major study recommendation.

   It is therefore recommended that this goal be changed to designate crews of the following sizes:

   LOH - 2
   UH - 2
   AH - 2
   CH-Medium - 3
   CH-Heavy - 3

3. Minimum Special Inspections - The basic objectives of the study involved aircraft scheduled inspections. This is a category different from the requirement for special inspection. Special inspections are generally geared to specific items which require a thorough examination after being subjected to certain conditions or incident. As such, these inspections are largely safety-of-flight requirements.

   The desired characteristic of minimum special inspections can be achieved through better aircraft designs for inspection and through improved knowledge of how to inspect the aircraft. Improvements in these areas will reduce special inspection requirements since inspection crews will inherently be better able to assess aircraft condition and make more thorough aircraft inspection. Future study of aircraft design approaches for inspection should consider aircraft subsystems most heavily involved in special inspection.

It should also be noted that requirements for special inspections can be reduced through improved design of components for higher reliability. Knowledge of the degree of overstress that the aircraft has been subjected to would also tend to reduce special inspection requirements.

4. <u>Clock Hours per A/C Type To Complete a Cycle of Inspections (per 100 Hours)</u> - This is an item which can be calculated and printed out in each run of the helicopter inspection model developed and used in this study. As noted in item 2 above, it is dependent upon aircraft inspection crew size and therefore was reviewed in conjunction with evaluation of crew size variation. For the recommended inspection scheme with the crew sizes recommended in item 2 above, model runs indicate the following clock hour requirements:

LOH	-	16.5
UH	-	23
AH	-	23
CH-Medium	-	29
CH-Heavy	-	32

This compares with the Army's present desired characteristics of:

LOH	-	4
UH	-	20
AH	-	24
CH-Medium	-	40
CH-Heavy	-	28

Comparison of these lists indicates that modeling results which are predicated upon existing hardware designs confirm the ability to achieve this desired characteristic for all aircraft but LOH. It should be noted that the model calculations for LOH could be somewhat higher than they should be since the composite aircraft configuration characteristics used in the modeling and the averaging techniques used in determining them may indicate inspection time requirements somewhat higher than necessary for LOH. A better determination in this area might be made through loading and running the model with configuration files specifically for each aircraft type.

From a review of the study modeling results and assuming improvement in designs for inspection and inspection techniques in future aircraft, engineering judgement indicates the following as desirable goals for inspection clock hours per 100 flight-hours:

LOH	-	12
UH	-	20
AH	-	20
CH-Medium	-	28
CH-Heavy	-	28

It is recommended that the Army's goals be revised to reflect these numbers at this time. Note that these recommended times do not consider avionic and weapon system inspection requirements since these were not included in the study.

5. Probability of Detecting Incipient Failures - 1.0 - One hundred percent probability of detecting incipient failures is the ideal design goal for any inspection system. In the foreseeable future, however, achieving this desired characteristic is not within the state of the art. The symptoms of impending failure in many components are unknown, and inspections for those incipient failures which do exhibit characteristic wear-out or failure signs are not carried out consistently.

   Further work is warranted in this area since higher detection probabilities than are presently reachable can be attained both in presently operational and in the next generation of aircraft. In both areas, study of component failure modes, the symptoms of the common failure modes, and the best techniques for detecting these symptoms should make available improvement in the inspection system. Better knowledge of what symptoms to look for and the techniques best applicable are direct inputs in achieving higher probabilities of detecting incipient failures.

6. Systematized and Chronological in Nature - Efficient inspections in any case can be achieved only if they follow systematized, chronological procedures. This requirement is of greatest importance in the type of inspection concept recommended as the result of this study. The phased

inspection selected is by its very nature systematized and chronological. It involves a long inspection cycle with different areas of the aircraft scheduled at a specific time (or times) within that cycle. Efficiency and assurance that the aircraft is inspected properly are highly dependent upon a systemized procedure. In future aircraft, packaging of subsystem hardware to facilitate a phased inspection is an important goal.

Selected Concept - Phased Inspection Schedule

As part of review and development of the inspection concept recommended as most effective, the inspection mix for that scheme as utilized in the modeling (Mix 7 of Appendix VI) was analyzed. The phasing of scheduled inspections for each generic component within the master configuration file was examined to refine the workload at the inspection points. Minor modifications in scheduling were made to equalize the workload requirement across the cycle.

The results of the analysis are provided in Appendix IX, "Component Mix for Recommended Inspection Concept". Inspection schedule is indicated by component for each 100-hour inspection interval. Two complete 800-hour inspection cycles are shown to fully define the recommended inspection points.

Technology Review Checklist for Helicopter Inspections

Design of aircraft has, until recently, seen the major emphasis applied to such primary objectives as performance, weight and cost. With the burgeoning costs of maintaining today's complex airborne systems, much attention is now being focused on reliability and maintainability as important design objectives. One aspect of the maintainability problem has, heretofore, received limited attention - that of aircraft scheduled inspections. As a result, the downtime and man-hours devoted to this function have risen sharply over the years.

In order for the designer to approach the problem of aircraft inspections intelligently, it is apparent that some prior knowledge of the inspection requirement is needed. Such information as the anticipated inspection method and frequency, equipment and facilities used, and personnel skills required can have a significant impact on the design concept. Designing for inspection is obviously concerned with equipment arrangement, packaging and installation, accessibility provisions, accommodations

for inspection equipment, and built-in devices for facilitating the inspection task. All of these factors have an important bearing on the time and cost of inspection.

A checklist system was developed to aid the designer in this area. Two checklists are used: a scheduling checklist and a designer's checklist. The first of these provides a systematic approach to scheduling components for inspection on the basis of known or anticipated failure characteristics and inspection methods. The second checklist guides the designer in such considerations as accessibility, system arrangement, and the use of integral inspection aids based on the decisions made in completing the scheduling checklist.

Application of the checklists is an iterative process. During the design study phase, components are tentatively scheduled for inspection on the basis of past history, engineering judgement, etc. At this point it may not be possible to answer all parts of the scheduling checklist, but sufficient information should be provided to select the design approach. The designer's checklist is then employed to guide design development along the lines of the planned inspection concept. After the design has been completed, it will often be necessary to return to the scheduling checklist to make adjustments on the basis of new knowledge or changes in the final design. This process could be repeated several times depending on the complexity of the design, period of development, etc. The procedure ensures that the development of inspection requirements parallels and influences design, rather than being left as an afterthought.

The two checklists are presented on the pages that follow.

SCHEDULING CHECKLIST

PART I - FAILURE CHARACTERISTICS AND INSPECTION METHODS

A. Anticipated Failure Rate:

- ☐ LOW
- ☐ MODERATE
- ☐ HIGH

B. Prevalent Failure Modes:

________	________%
________	________%
________	________%
________	________%

C. Time From Onset of Deterioration to Failure:

- ☐ SUDDEN FAILURE
- ☐ SHORT
- ☐ MODERATE
- ☐ LONG

D. Inspection Methods:

- ☐ BITE
- ☐ BIM
- ☐ SPECTROGRAPHIC OIL ANALYSIS
- ☐ OPERATIONAL VISUAL CHECK
- ☐ OPERATIONAL AUDIO CHECK
- ☐ OPERATIONAL VIBRATORY CHECK
- ☐ OPERATIONAL TEMPERATURE CHECK
- ☐ FUNCTIONAL CHECK
- ☐ STATIC VISUAL CHECK
- ☐ MANUAL PLAY/CLEARANCE CHECK
- ☐ PRECISION DIMENSIONAL CHECK
- ☐ TORQUE CHECK
- ☐ TENSION CHECK
- ☐ SPRING RATE TEST
- ☐ VACUUM CHECK
- ☐ PRESSURE TEST
- ☐ FLOW RATE CHECK
- ☐ OPTICAL MAGNIFICATION INSP
- ☐ DYE PENETRANT INSPECTION
- ☐ MAGNETIC PARTICLE INSPECTION
- ☐ X-RAY INSPECTION
- ☐ ELECT/AVIONIC CHECK (COMMON)
- ☐ ELECT/AVIONIC CHECK (SPECIAL)
- ☐ TAP TEST
- ☐ FRICTION CHECK
- ☐ ALIGNMENT CHECK
- ☐ TIME CHECK

PART I - FAILURE CHARACTERISTICS AND INSPECTION METHODS (Con't)

E. Considerations:

1. Are the selected methods of inspection consistent with the predominant modes of failure anticipated? ☐YES ☐NO

2. For each of the inspection methods, are the acceptance/rejection criteria being considered reasonable? (Don't promote unnecessary rejections with overly conservative criteria.) ☐YES ☐NO

3. Will the failure frequency be consistent enough to permit inclusion of the component in a mandatory retirement list, thereby substituting arbitrary replacement based on operating hours in lieu of any inspection? ☐YES ☐NO

4. Would it be advantageous to substitute a more thorough or comprehensive inspection at a longer interval in place of two or or more less searching but short-interval inspections? ☐YES ☐NO

PART II - DETERMINING IF ITEM IS FLIGHT-READINESS CANDIDATE:

A. Is it likely that the component will have more than a negligible probability of failure during flight? ☐YES ☐NO

B. Is it probable that failure in any significantly occurring mode will substantially degrade mission performance or cause an abort? ☐YES ☐NO

C. Will failure in any significantly occurring mode threaten flight safety? ☐YES ☐NO

D. Is the anticipated failure characteristic such that evidence of deterioration precedes actual failure? ☐YES ☐NO

E. Will it be possible for deterioration or the onset of failure to be detected with inspection techniques available to organizational level maintenance? ☐YES ☐NO

F. Will the anticipated inspection task be completed in a reasonably short period of time? ☐YES ☐NO

G. Can the inspection be performed by the crew chief? ☐YES ☐NO

H. Is it <u>unlikely</u> that inspection being considered will damage the component or make it more vulnerable to failure in future use? ☐YES ☐NO

I. Is it <u>unlikely</u> that the ground or flight crew would detect deterioration or failure in the normal course of their duties even if no inspection were performed? ☐YES ☐NO

J. Will crew confidence be enhanced by performing a flight-readiness inspection? ☐YES ☐NO

PART II - DETERMINING IF FLIGHT-READINESS CANDIDATE (Con't):

Answering the majority of the above questions in the affirmative, especially the first three, indicates that the component probably merits inclusion in a flight-readiness inspection. Once a decision has been made to schedule a component for inspection at the flight-readiness level, it is necessary to determine which inspection point (if more than one are included in the concept) is the most appropriate. The following checklist will be used as an aid in the decision.

PART III - DETERMING IF ITEM IS A PREFLIGHT OR POSTFLIGHT CANDIDATE:

A. Will it be acceptable to conduct more than one flight between inspections of the component? ☐YES ☐NO

B. Is it anticipated that evidence of deterioration or failure will be greatest immediately prior to a flight? ☐YES ☐NO

C. Is it anticipated that evidence of deterioration or failure will be greatest immediately after a flight? ☐YES ☐NO

D. Is the component likely to be damaged through ground handling or other routine maintenance operations in periods between flight activity. ☐YES ☐NO

Answering question (A) in the affirmative eliminates the component as a candidate for either preflight or postflight inspection, and the component should be included only in the daily schedule. Conversely, a negative response to question (A) qualifies the item for pre- or postflight inspection. The answers to the remaining three questions will aid in determining which one to select.

All components will be subjected to a scheduled inspection at least once during the inspection cycle. Some shall be inspected more often. The following checklist is provided to aid in determining the inspection frequency.

PART IV - SELECTING SCHEDULED INSPECTION INTERVAL:

A.	What failure rate is anticipated?	☐HIGH	☐MODERATE	☐LOW
B.	The time from onset of deterioration to failure is expected to be:	☐SHORT	☐MODERATE	☐LONG
C.	How often will failure or onset of deterioration be detected by ground or flight crew during normal duties?	☐ALMOST NEVER	☐SOMETIMES	☐ALMOST ALWAYS
D.	Will undetected failure significantly affect flight safety or misson reliability?	☐YES	☐SOMETIMES	☐NO
E.	Will failure cause secondary damage which will be more costly in terms of material or maintenance time?	☐ALMOST ALWAYS	☐SOMETIMES	☐ALMOST NEVER
F.	The time required to inspect this component will be:	☐SHORT	☐MODERATE	☐LONG
G.	The anticipated skill required of the inspecting personnel is:	☐LOW	☐MODERATE	☐HIGH
H.	The equipment/facilities required to accomplish the inspection being considered are:	☐SIMPLE	☐MODERATELY COMPLEX	☐COMPLEX

The blocks provided for entering check marks in reply to the above questions form three columns. If, after answering all questions, column one contains the most checks, the component

is a likely candidate for the shortest inspection interval within the inspection cycle. The decision must be influenced, however, by the knowledge that the questions are listed in descending order of importance. In cases where most checks appear in the third column, the longest inspection interval provided by the inspection scheme is probably desirable. The majority of checks in the second column indicates that an intermediate interval should be considered.

After all components are grouped with respect to optimum inspection interval, each group, except the shortest interval group, should then be divided and phased to produce uniform manpower and equipment use requirements at every inspection. The considerations listed in Part V of this checklist should be made during the process of phasing (after design is completed and all scheduling decisions have been made).

PART V - DIVIDING AND PHASING THE INTERVAL GROUPS (AFTER DESIGN AND SCHEDULING IS COMPLETE.):

A. As phased, are the manpower requirements uniform at each inspection point within the inspection cycle? ☐YES ☐NO

B. Has adequate consideration been given to phasing components as a function of their location within the helicopter? ☐YES ☐NO

C. Have components which require the same type of inspection been grouped together so that personnel with special skills are required at the minimum number of inspection points within the cycle? ☐YES ☐NO

D. Have components been grouped so that all those requiring special inspection equipment are scheduled for the same inspection point insofar as is possible? ☐YES ☐NO

DESIGNER'S CHECKLIST

PART I - SCOPE OF INSPECTION:

A. It is anticipated that the component will be subjected to the following flight-readiness inspections:

- ☐ NONE
- ☐ DAILY
- ☐ PREFLIGHT
- ☐ POSTFLIGHT

B. The anticipated scheduled inspection interval is:

- ☐ SHORT
- ☐ MODERATE
- ☐ LONG

C. The anticipated methods of scheduled inspection are:

- ☐ BITE
- ☐ BIM
- ☐ SPECTROGRAPHIC OIL ANALYSIS
- ☐ OPERATIONAL VISUAL CHECK
- ☐ OPERATIONAL AUDIO CHECK
- ☐ OPERATIONAL VIBRATORY CHECK
- ☐ OPERATIONAL TEMP CHECK
- ☐ FUNCTIONAL CHECK
- ☐ STATIC VISUAL CHECK
- ☐ MANUAL PLAY/CLEARANCE CHECK
- ☐ PRECISION DIMENSIONAL CHECK
- ☐ TORQUE CHECK
- ☐ TENSION CHECK
- ☐ SPRING RATE TEST
- ☐ VACUUM CHECK
- ☐ PRESSURE TEST
- ☐ FLOW RATE CHECK
- ☐ OPTICAL MAGNIFICATION INSP
- ☐ DYE PENETRANT INSPECTION
- ☐ MAGNETIC PARTICLE INSP
- ☐ X-RAY INSPECTION
- ☐ ELEC/AVIONIC CHECK (COMMON)
- ☐ ELEC/AVIONIC CHECK (SPECIAL)
- ☐ TAP TEST
- ☐ FRICTION CHECK
- ☐ ALIGNMENT CHECK
- ☐ TIME CHECK

PART II - DESIGN CONSIDERATIONS:

A. Will the component be accessible for inspection without removal of major structural panels and without disturbing other components? ☐YES ☐NO

B. Can incorporation of an integral but simple inspection aid significantly improve inspection confidence or reduce inspection time? ☐YES ☐NO

C. If the anticipated method of inspection requires attachment of inspection devices to the component, have adequate provisions for this been incorporated in the component or its system? ☐YES ☐NO

D. Have adequate clearances been provided for hands, hand tools, etc., during the process of securing inspection devices to the component? ☐YES ☐NO

E. Have inspection device attachment provisions been designed for rapid and easy use without necessitating subsequent servicing or adjustment of component or system? ☐YES ☐NO

F. Has adequate consideration been given to locating the component in proximity to others that will use the same inspection devices? ☐YES ☐NO

G. Insofar as is possible, is the component located or oriented in a manner that will permit inspecting personnel to assume a comfortable position during the inspection process? ☐YES ☐NO

PART II - DESIGN CONSIDERATIONS (Con't)

H. Has adequate consideration been given to locating the component in proximity to others that will have the same inspection interval (time between inspection)? ☐YES ☐NO

I. Have precautions been taken in design of the component to reduce the possibility of maintenance/inspection-induced failures? ☐YES ☐NO

LIMITATIONS TO THE ANALYSIS

The data bank available during the study and the level of manpower which could be employed was sufficient to reach substantive conclusions and accomplish all of the study objectives. There are, however, areas within the analysis which could have been given more intensive scrutiny had additional data and time been available.

The impact of inspection/repair-induced failures and the higher failure rate of newly installed components was not considered in the modeling due to absence of data differentiating these from other failures. For the long inspection intervals considered, which are clearly advantageous, the effect on the analysis of averaging this type of failure in with the normal type failures was minor. Consideration of these factors would have affected the shape of the curves of Figure 13 only for intervals less than those plotted and thus would not have changed the concept selection. However, the importance of knowledge of the true impact of this problem upon the maintenance system should not be negated, and a study of larger scope would certainly deepen the analysis in this area.

In the area of failure onset phenomenon (T_{OS}), average values were utilized in the modeling instead of a distribution around that average. This factor would not change the study result due to the long operating times considered and the fact that comparative results between different inspection concepts were the basis for the selection. But the ability to detect the onset of failure is a major reason for scheduling inspection, and study of failure onset phenomena deserves more substantial treatment than could be given here. Analysis of T_{OS} distributions would be of importance in modeling to determine the optimum component inspection mix for a specific existing aircraft. In that case, failure history records at the work unit code level would allow calculation of T_{OS} distribution at the component level. Including these distributions in the modeling would help determine the inspection schedule which would achieve maximum availability and reliability.

In addition, it should be noted that the helicopter inspection model developed as part of the study effort is a powerful tool which provides results beyond those required to complete the study tasks. Appendix X provides model option A and B outputs for the recommended inspection scheme as an example of this

capability. Note that rates of significant events related to inspection and maintenance are printed out on a component, subsystem, and system basis and that scheduled inspection and repair man-hour summaries are provided by MOS. Deeper analysis of data of this type which was beyond the allotted study resources could provide valuable information related to problem areas in reliability, maintainability and scheduled inspection.

CONCLUSIONS

The following pertinent conclusions may be drawn from the analyses and results of the study:

1. Proper scheduling of individual component inspections based upon failure and failure detection historical data will allow present inspection interval and cycle times to be increased. This will provide increased maintenance efficiency and maintenance cost savings with little reduction in mission reliability.

2. If one standard preventive maintenance inspection scheme is to be applied to all Army helicopter types regardless of unit size, assigned mission, or geographical location, phased inspection with 100-hour interval and 800-hour cycle times is the most effective inspection system. Scheduling of component inspections for each aircraft type within that system should be determined through analysis of individual component inspection requirements.

3. The failure onset (T_{OS}) theory developed in this study is a viable concept for comparison of the effectiveness of inspection schemes.

4. Modification of Army helicopter inspection desired characteristics is indicated by the analysis results.

5. Imposing design for inspection guidelines as part of the design requirement for future aircraft can result in improvement in the inspection function and in the maintenance system.

RECOMMENDATIONS

It is recommended that:

1. A field test of the inspection scheme selected in this study be conducted on an existing helicopter type in an Army unit or units by regular Army personnel in the normal operational environment as a first step in implementing the selected inspection concept. Prior to this, an investigation of the specific components of the selected aircraft type should be made relative to checklist scheduling with emphasis on flight safety items and T_{OS} (failure onset detectability) to optimize expected aircraft availability and mission reliability. A checklist based upon this investigation should be used in the field test.

2. The inspection scheme to be used on future aircraft be imposed as part of the design requirements, and that aircraft designers be required to substantiate their ability to comply.

3. A requirement for completion of a design for inspection checklist at the component level be imposed upon the aircraft designer, and the list be kept current throughout the design phase.

4. Future study related to aircraft inspection be considered in the following areas:

   a. Establishing symptoms for actual component failure modes and improved inspection techniques for detecting these symptoms.

   b. Investigation of design approaches for improved helicopter inspection.

   c. Further investigations and refinement of the failure onset theory developed in this study.

   d. Further application of the mathematical model developed in this study to make full use of its capability to define and analyze problems at the component level.

APPENDIX I

INSPECTION MODELING TECHNIQUE DESCRIPTION

The inspection analysis model performs two basic levels of computational operations. The first level integrates the inspection parameters and utilization factors with the configuration data bank and calculates expected values for failures, preventive repairs, maintenance man-hours, and aborts for each component over each individual scheduled inspection interval. The second level of computations operates on these values and calculates the figure of merit for each inspection scheme. Higher figure of merit is the indicator of advantage of one scheme over another. Figure of merit is discussed in the report section describing the development of the inspection concept.

This Appendix describes the theory, assumptions, and computations of the first level of model operations.

MODEL THEORY AND ASSUMPTIONS

In order to evaluate the impact of variations in inspection interval on component failure, it is necessary to make a number of assumptions. To be able to calculate the effect of changing interval times, it is essential that the failure data be available in quantitative form. However, field data available for this program is somewhat unreliable and in insufficient detail to allow rigorous analysis of failure behavior. It therefore becomes necessary to make a number of simplifying assumptions in order to construct a model which approximates actual behavior.

The following general failure categories exist in practice.

1. Components will wear out with the probability of failure increasing with increasing hours of operation. Any component can fail in two ways: either the failure is sudden with no prior detectable indications that it is about to occur,or the failure is progressive in such a way that the onset of failure is detectable prior to its occurrence.

   Inspection procedures can do nothing to minimize wearout failure which occurs without detectable signs of impending failure. The proper course of action in such cases is to either redesign for longer life or schedule preventative replacement before the probability of failure has exceeded acceptable limits.

On the other hand, inspection procedures can eliminate failures if the onset of failure is detectable at the time of inspection.

2. Random failures occur during the useful life of a component, and they can be simply described in terms of a constant failure rate which is the reciprocal of the mean time between failures.

   Here again these failures may occur suddenly without any detectable warning signs, or they may be characterized by a wearout behavior which enables the presence of impending failure to be detected at the time of inspection.

   Inspection will do nothing to prevent sudden random failures where the onset is undetectable by present inspection techniques; if these failures are critical, redesign or design modification is the only solution.

This study is based upon the four basic assumptions pertaining to component failures which are listed below:

1. Start of failure is random. All components are assumed to have a random rate of entering a detectably deteriorated state, λ.
2. Given that a component has entered the deteriorated state, there is an average time interval, T_{os}, between the time when the impending failure is first detectable and the time at which failure occurs (for sudden or undetectable failures $T_{os} = 0$).
3. If a component is found in a detectably deteriorated state during a scheduled inspection (flight-readiness inspections not included), a preventive repair will be made at that time.
4. If a component failure occurs between inspections, the component will be replaced at that time.

The basic model inputs for each component consist of the random rate of entering the detectably deteriorated state, λ, and the average time interval, T_{os}, between the time when the onset of failure is first detectable and the time at which failure occurs.

For random failures with undetectable onset of failure, the probability of a component failure, $Q_F(t)$, in the time interval t is given by

$$Q_F(t) = 1 - e^{-\lambda t} \tag{1}$$

In the case of random failures where the onset of failure is detectable, the probability of a component entering the deteriorated state, $Q_D(t)$, in the time interval t is given by

$$Q_D(t) = 1 - e^{-\lambda t} \tag{2}$$

where $Q_F(t)$ is assumed to be

$$Q_F(t) = Q_D\,(t - T_{os}) \text{ for } t \geq T_{os} \tag{3}$$

Thus, given N components undergoing random failure with the onset of failure being detectable, the total number of components, D(t), having entered the deteriorated state at time t is given by

$$D(t) = N\,(1 - e^{-\lambda t}) \tag{4}$$

Similarly, the total number of components, F(t), having failed at time t is given by

$$F(t) = N\,(1 - e^{-\lambda\,(t - T_{os})}) \text{ for } t \geq T_{os} \tag{5}$$

This mathematical representation must be modified for use in the helicopter inspection analysis model because the equations above represent the probabilities for the continual deterioration and failure of one set of N components. For helicopter maintenance procedures, however, it has been assumed that failure of a component between inspection times results in the replacement of that component with a component exhibiting no detectable onset of failure. This changes the number of

good components available for deterioration and failure and leads to the mathematical analysis described below.

The assumption has been made that a component fails at an average time T_{os} after the onset of failure has become detectable. It has also been assumed that any components with the onset of failure detectable at the time of inspection are replaced with good components at that time. The meaning of the functions used in this analysis are defined below.

- G(t) The number of components that are good at any time t.
- D(t) The total number of components which have entered the detectably deteriorated state by the time t.
- F(t) The total number of components which have failed by the time t.
- DR(t) The rate at which the components are entering the detectably deteriorated state at time t.
- FR(t) The rate at which the components are failing at time t.

All components are assumed to be good at time t = 0, and N is the number of components of the type being considered.

For the case of those failures where the failure onset is detectable at the time of inspection, the computation of failure probability has been modified to account for the high probability that failure will occur immediately after inspection. If there is no detectable deterioration of the component at time t = 0, then the probability of its failing is assumed to be zero for the time interval T_{os} after a scheduled inspection. The following equations can therefore be defined.

For $0 \leq t \leq T_{os}$,

$$G(t) = Ne^{-\lambda t} \tag{6}$$

$$D(t) = N\,(1 - e^{-\lambda t}) \tag{7}$$

$$DR(t) = N\lambda e^{-\lambda t} \tag{8}$$

$$F(t) = 0 \tag{9}$$

$$FR(t) = 0 \tag{10}$$

Taking the derivative of equation (7) with respect to t gives

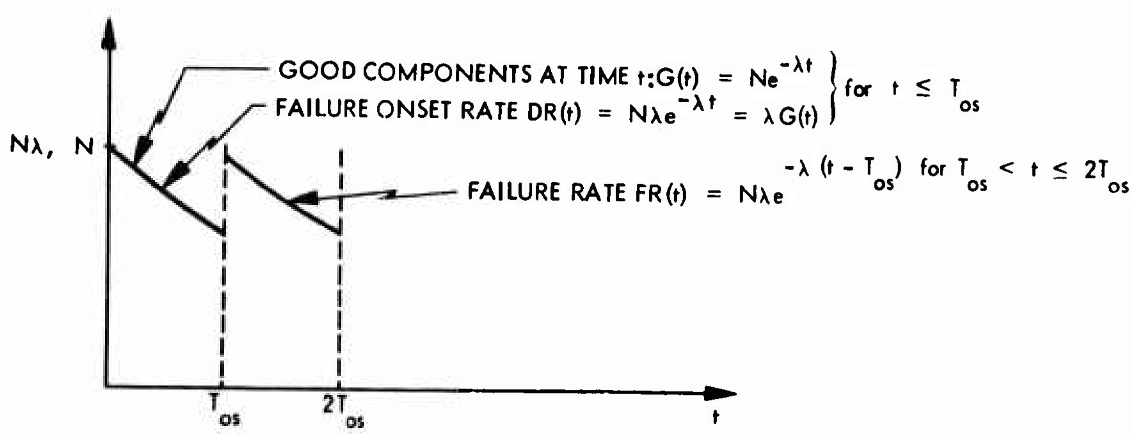
$$\frac{dD(t)}{dt} = DR(t) = N\lambda e^{-\lambda t} \quad \text{for } 0 \leq t \leq T_{os} \tag{11}$$

From the assumptions made of failure times, the failure rate function, FR(t), is equal to the deterioration rate function at the time $(t - T_{os})$.

Thus for $T_{os} < t \leq 2T_{os}$,

$$FR(t) = N\lambda e^{-\lambda(t - T_{os})} \tag{12}$$

These functions as defined within the given time limits are shown below.



If a part fails, it is replaced by a good component. Therefore, over all values of time t,

$$G(t) = N - D(t) + F(t) \tag{13}$$

where N = total number of components under study (all good at t = 0).

Equation (13) can be stated in words as the number of good components at any time t is equal to the initial number of good components minus all components which have started to deteriorate plus all components which have completed deterioration, failed, and have been replaced with good components. D(t) and F(t) can also be defined for all values of time by the following equations:

$$D(t) = \int_0^t DR(t)\, dt \tag{14}$$

$$F(t) = \int_0^t FR(t)\, dt \tag{15}$$

or for $t \geq T_{os}$,

$$F(t) = \int_0^{t-T_{os}} DR(t)\, dt \tag{16}$$

Thus, combining Equations (13), (14), and (16) for $t \geq T_{os}$,

$$G(t) = N - \int_0^t DR(t)\, dt + \int_0^{t-T_{os}} DR(t)\, dt$$

or

$$G(t) = N - \int_{t-T_{os}}^{t} DR(t)\, dt \tag{17}$$

The characteristics of a random distribution help to further define DR(t). At any time t, the probability of a component's starting to fail is directly proportional to both the number of good components available to start failing and the rate of entering the detectably deteriorated state. Thus,

$$DR(t) = \lambda G(t) \tag{18}$$

A simple example helps to illustrate this relationship. For the case of no replacements when failures occur equations (6) and (8) apply.

$$G(t) = N e^{-\lambda t}$$

$$DR(t) = N\lambda e^{-\lambda t}$$

or

$$DR(t) = \lambda G(t)$$

Thus, equations (17) and (18) lead to the integral equation for G(t) for $t \geq T_{os}$:

$$G(t) = N - \int_{t-T_{os}}^{t} \lambda G(t)\, dt \tag{19}$$

A summary of the resultant equations is given below:

For $0 \leq t \leq T_{os}$,

$$G(t) = Ne^{-\lambda t}$$

$$D(t) = N (1 - e^{-\lambda t})$$

$$F(t) = 0$$

For $t \geq T_{os}$,

$$G(t) = N - \int_{t-T_{os}}^{t} \lambda G(t)\, dt$$

$$D(t) = \int_{0}^{t} \lambda G(t)\, dt \tag{20}$$

$$F(t) = \int_{0}^{t-T_{os}} \lambda G(t)\, dt \tag{21}$$

where the preventive repairs at time t are given by the equation below.

$$PR(t) = N - G(t) \text{ or } PR(t) = D(t) - F(t) \tag{22}$$

In order to use the equations for $t \geq T_{os}$ in a computerized model, it is desirable to have an analytical solution to these equations. Solving equation (19) for G(t) for $T_{os} \leq t \leq 2T_{os}$,

$$G(t) = N\left(\lambda(t - T_{os})\, e^{-\lambda(t - T_{os})} + e^{-\lambda t}\right) \tag{23}$$

For $t > 2T_{os}$, G(t) may be approximated by a constant value, K_{ss}.

An analytic solution for the function

$$G(t) = N - \int_{t-T_{os}}^{t} \lambda G(t)\, dt \tag{24}$$

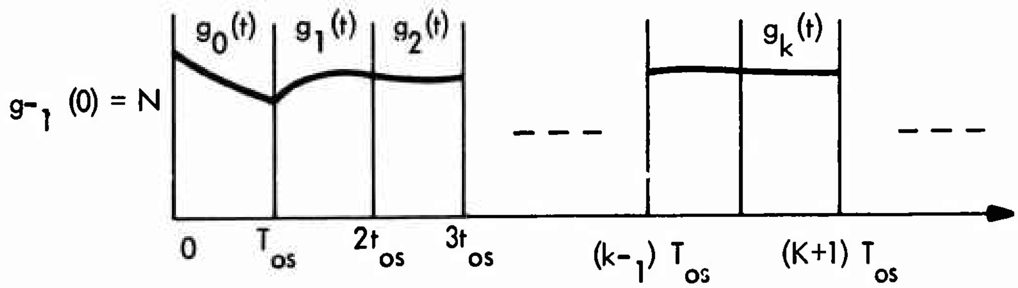
may be obtained for a range of time, t, such that $nT_{os} \leq t \leq (n + 1)\, T_{os}$ for $n \geq 1$. However, for the time period corresponding to any given n, the function G(t) is dependent upon its behavior during the time interval corresponding to (n - 1), where

$$G(t) = Ne^{-\lambda t} \quad \text{for } n = 0$$

The general solution to equation (24) is

$$g_k(t) = \sum_{h=0}^{k} \left[\frac{g_{h-1}(h\,T_{os})}{(k - h)\,!} (\lambda\tau_k)^{k-h}\right] e^{-\lambda\tau_k} \tag{25}$$

where $\tau_k = t - kT_{os}$



For k = 0, 1, and 2, the above expression gives

$$g_o(t) = g_{-1}(0)\, e^{-\lambda \tau_o} = Ne^{-\lambda t} \tag{26}$$

$$g_1(t) = g_o(T_{os})\, e^{-\lambda \tau_1} + N \lambda \tau_1 e^{-\lambda \tau_1} \tag{27}$$

$$g_2(t) = g_1(2T_{os})\, e^{-\lambda \tau_2} + g_o(T) \lambda \tau_2\, e^{-\lambda \tau_2} + \frac{N\lambda^2}{2} \tau_2^2\, e^{-\lambda \tau_2} \tag{28}$$

The function may be approximated by

$$G(t) = K_{ss} = \frac{N}{1 + \lambda T_{os}} \quad \text{for } t \geq 2T_{os} \tag{29}$$

Figure 23 is a plot of two sample cases of G(t) given to help develop an understanding of the function G(t). One is an extreme case where the MTBF is equal to T_{os} and the other is a more realistic case for T_{os} equal to 10% of the MTBF. Note that as $t \to \infty$, the function G(t) approaches a steady state as previously stated.

The following equations which are used for failure analysis within the model are obtained by combining equations (20), (21), (22), (23), and (29) and integrating equations (20) and (21).

For $0 \leq t \leq T_{os}$,

$$PR(t) = N\,(1 - e^{\lambda t}) \tag{30}$$

$$F(t) = 0 \tag{31}$$

For $T_{os} < t \leq 2T_{os}$,

$$PR(t) = N\,(1 - \lambda\,(t - T_{os})\, e^{-\lambda\,(t - T_{os})} - e^{-\lambda t}) \tag{32}$$

$$F(t) = N\,(1 - e^{-\lambda(t - T_{os})}) \tag{33}$$

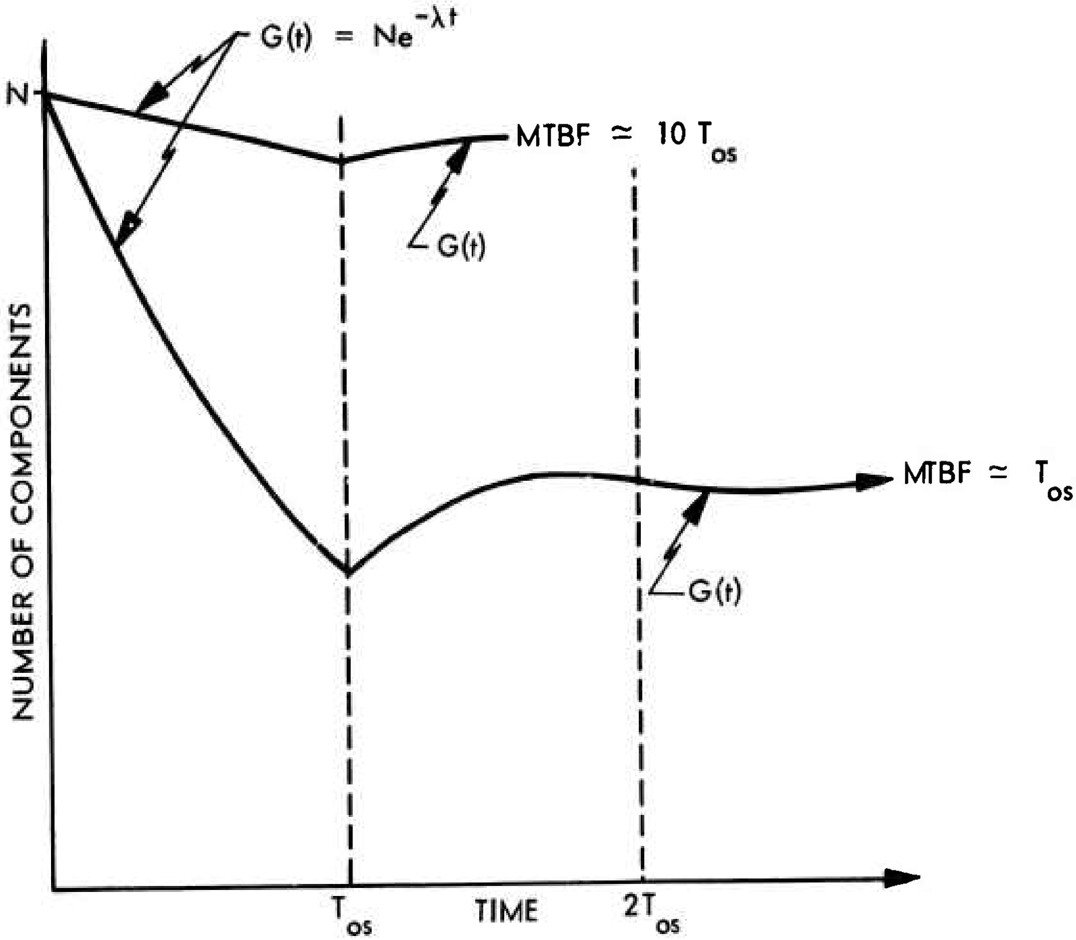


Figure 23. Sample G(t) Cases.

For $2T_{os} < t \leq 3T_{os}$,

$$PR(t) = N - K_{ss} \tag{34}$$

$$F(t) = N(2 + (-\lambda(t - 2T_{os}) - 1)e^{-\lambda(t - 2T_{os})} - e^{-\lambda(t-T_{os})}) \tag{35}$$

For $t > 3T_{os}$,

$$PR(t) = N - K_{ss} \tag{36}$$

$$F(t) = N(2 + (-\lambda(T_{os}) - 1)\, e^{-\lambda T_{os}} - e^{-\lambda 2T_{os}})$$

$$+ \lambda K_{ss}\,(t - 3T_{os}) \tag{37}$$

Thus, the expected number of component failures between inspection intervals or the expected number of component replacements at inspection intervals can be calculated if λ, T_{os}, and the inspection time interval t are known. Available historical data on many typical components is such that the percentage of failures that were found during scheduled inspections as well as the number of failures per a given time can be determined. Knowing the inspection time interval, t, and the number of components covered by the historical data, the number of components replaced per scheduled inspection can be calculated. By estimating the model input data (λ and T_{os}) for a component and running it through the appropriate part of the model, an iterative routine can be established to calculate the component variables λ and T_{os} for the master configuration file data bank. Once these values (λ and T_{os}) for a component have been set, they are used with the mathematical technique described by equations (30) to (37) for evaluating failure characteristics at different inspection intervals.

MODEL COMPUTATIONS

The model will compute data on failures and detectable failure onset in accordance with the inspection intervals used in the concept being analyzed. Summaries of the repair rates and maintenance man-hour rates are then computed and printed out. The

array of values generated by the model expresses the levels of reliability and maintenance demand which may be expected under the inspection scheme. The summary listing serves as an information record, supporting the figures of merit generated for the inspection scheme in the second-level modeling. The basic output calculations to be used to obtain the model output data and the reasoning behind their structural development are given in subsequent paragraphs. Many of the calculations are given in terms of or are related to the parameters listed below with their corresponding characters.

- i Component
- j Military Occupational Specialty - M.O.S.
- ℓ Inspection Interval

The preventive and unscheduled repair rates per 10,000 flight-hours are based on the rates per inspection interval. These rates must be calculated on the component level because this is the level at which all the failure data is given. Within an inspection cycle, different components may have different inspection intervals, thus making the inspection interval time and the number of intervals per cycle dependent upon the component. The number of components of one type per aircraft model is also dependent upon the component type. Thus, these factors are all considered at the component level. The results of these constraints yield the following equations.

<u>Preventive Repair Rates</u>

$$RR_p = \sum_{i=1}^{N_g} N_c \left(N_i \, [i]\right) \left(N_t \, [i]\right) \left(PR \, [i]\right)$$

where RR_p = Total repairs performed at scheduled inspections per 10,000 flt-hr

$PR\ [i]$ = Preventive repairs for a component of the i^{th} type per inspection interval

$N_i\ [i]$ = Number of inspection intervals per inspection cycle for the i^{th} component

$N_t\ [i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

<u>Unscheduled Repair Rate</u>

$$RR_u = \sum_{i=1}^{N_g} N_c\ (N_i\ [i])\ (N_t\ [i])\ (UR\ [i])$$

where

RR_u = Total unscheduled repairs per 10,000 flt-hr

$UR\ [i]$ = Unscheduled repairs for a component of the i^{th} type per inspection interval

$N_i\ [i]$ = Number of inspection intervals per inspection cycle for the i^{th} component

$N_t\ [i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

To evaluate the choice of time interval per component, it is desirable to be able to see the various rates for each component. Thus, by performing the summation by components as the last operation in the above equations and in the equations to follow, all of the rates can be obtained for each component for evaluating the effect of inspection time interval variations at the component level.

The man-hour rates produced by the model are a measure of relative cost in inspection scheme evaluation, and the sum of man-hour expenditures of all the different types of M.O.S. will be used as a factor in the second-level modeling. However, the basic output calculation for each inspection scheme evaluated will provide a breakdown of man-hour requirements by M.O.S. This will provide visibility to the distribution of manpower requirements with regard to skill level and time.

The unscheduled aircraft repair is assumed to be less efficient than repairs performed at a scheduled inspection interval. Thus, an inefficiency factor is included in the unscheduled repair man-hour rate. This factor, K_1, is assumed to be about 1.2, representing 20% more time expended on an unscheduled repair than on the same repair performed at a scheduled inspection interval.

Since all intervals and all cycles are assumed to be identical for each component, the following equations for the man-hour rates are given.

<u>Preventive Repair Man-Hour Rate</u>

$$MH_p = \sum_{i=1}^{N_g} N_c \, (N_i[i]) \, (N_t[i]) \, (MH[i,j]) \, (PR[i])$$

where

MH_p = Preventive repair man-hours per 10,000 flt-hr

$MH[i,j]$ = Man-hours to repair i^{th} component using a repair crew (1 or more men as required) of the j^{th} M.O.S.

$PR[i]$ = Preventive repairs for a component of the i^{th} type per inspection

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

<u>Unscheduled Repair Man-Hour Rate</u>

$$MH_u = \sum_{i=1}^{N_g} N_c\, K_i\, (N_i\,[i])\,(N_t\,[i])\,(MH\,[i,j])\,(UR\,[i])$$

where

MH_u = Unscheduled repair man-hours per 10,000 flt-hr

$MH\,[i,j]$ = Man-hours to repair i^{th} component using a repair crew (1 or more men as required) of the j^{th} M.O.S.

$UR\,[i]$ = Unscheduled repairs for a component of the i^{th} type between inspections

$N_i\,[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t\,[i]$ = Number of components of the i^{th} type on aircraft under analysis

K_i = Unscheduled repair inefficiency factor

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

<u>Flight-Readiness Inspection Man-Hour Rate</u>

$$MH_F = \sum_{i=1}^{N_g} N_c\, (N_i\,[i])\,(N_t\,[i])\,(N_f\,[i])\,(EIT_F\,[i,j])$$

where

MH_F = Flight-readiness inspection man-hours per 10,000 flt-hr

$EIT_F\,[i,j]$ = Elapsed inspection time for flight-readiness inspection of the i^{th} type by crew member of the j^{th} M.O.S.

$N_f[i]$ = Number of flight-readiness inspections per inspection interval for a component of the i^{th} type. (If the i^{th} type component is not subject to a flight-readiness inspection $N_f[i] = 0$, for all other cases $N_f[i]$ is dependent upon the aircraft type usage and scheduled inspection intervals.)

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Scheduled Inspection Man-Hour Rate

$$MH_s = \sum_{i=1}^{N_g} N_c \, (N_i[i]) \, (N_t[i]) \, (EIT_s[i,j])$$

where

MH_s = Scheduled inspection man hours per 10,000 flt-hr

$EIT_s[i,j]$ = Elapsed inspection time for scheduled inspection of a component of the i^{th} type (equal to zero if component not subject to scheduled inspection) by a maintenance crew member of the j^{th} M.O.S.

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Repair or replacement of some of the component types is not generally a one-man job. Thus, another important figure related to a component is the average elapsed maintenance time (EMT) associated with a failure of that component. Using this figure, two more rates are calculated. Once again a preventive repair occurring at a scheduled inspection interval is assumed to be more efficient than an unscheduled repair. Thus, the inefficiency factor, K_i, is also included in the calculation of unscheduled elapsed maintenance times.

Preventive Repair Elapsed Maintenance Time Rate

$$EMT_p = \sum_{i=1}^{N_g} N_c \, (N_i[i]) \, (N_t[i]) \, (EMT[i,j]) \, (PR[i])$$

where

EMT_p = Preventive repair elapsed maintenance time per 10,000 flt-hr

$EMT[i,j]$ = Elapsed maintenance time to repair i^{th} component using a repair crew of the j^{th} M.O.S.

$PR[i]$ = Preventive repairs for a component of the i^{th} type per inspection

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Unscheduled Repair Elapsed Maintenance Time Rate

$$EMT_u = \sum_{i=1}^{N_g} N_c \, K_i \, (N_i[i]) \, (N_t[i]) \, (EMT[i,j]) \, (UR[i])$$

where

EMT_u = Unscheduled repair elapsed maintenance time per 10,000 flt-hr

$EMT[i,j]$ = Elapsed maintenance time to repair i^{th} component using a repair crew of the j^{th} M.O.S.

$UR[i]$ = Unscheduled repairs for a component of the i^{th} type between inspections

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

K_i = Unscheduled repair inefficiency factor

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

At the same time that historical data is being processed to give the percentage of failures found during scheduled inspections (used for T_{OS} calculations), a complete distribution of the failures on a component by "when discovered" can be found. A breakdown of the failures into the "when discovered" classifications listed below is sufficient for the analysis used in the model.

When Discovered	Percentage of Total Failures
Preflight Abort	XX
In-Flight Abort	XX
Flight-Readiness Inspection	XX
Scheduled Inspection	XX
All Other	XX

There may be many modes of failure for a given component, each affecting the aircraft's performance differently, and many being found in different ways. Three data elements of the master configuration file which are taken from the above distribution in order to account for these varying effects are listed below:

1. Probability of abort given a component failure if component is not subject to flight-readiness inspection.

2. Probability of abort given a component failure if component is subject to flight-readiness inspection.

3. Percentage of all aborts occurring in-flight.

In the operation on the model, the probability of abort, PA, given a component failure is set to either (1) or (2) depending on whether or not the component being analyzed is included in a flight-readiness inspection. Using these component parameters, the following two rates are calculated.

Mission Abort Rate

$$AR_m = \sum_{i=1}^{N_g} N_c \, (N_i[i]) \, (N_t[i]) \, (UR[i]) \, (PA[i])$$

where

AR_m = Total mission aborts per 10,000 flt-hr

$PA[i]$ = Probability of mission abort given a failure of a component of the i^{th} type

$UR[i]$ = Unscheduled repairs for a component of the i^{th} type per inspection interval

$N_i[i]$ = Number of inspection intervals per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

In-Flight Abort Rate

$$AR_i = AR_m \, (INFLT)$$

where

AR_i = Total in-flight aborts per 10,000 flt-hr

AR_m = Total mission aborts per 10,000 flt-hr

INFLT = Percentage of all mission aborts occurring in-flight

The increase of aircraft availability is one of the goals of this study. Thus, the downtime rates, upon which availability is dependent, must be calculated. The distribution of aircraft downtime throughout an inspection cycle is also important in evaluating the full effect of the different inspection schemes on availability. Since some items may be inspected at different intervals, the man-hours of labor required at different intervals may vary. Thus, the average downtime for each of the intervals is to be calculated as a function of required man-hours of labor and inspection crew size.

Several assumptions have been made as a basis for scheduled downtime calculations. The inspection crew size (K_c [ℓ] = number of men in inspection crew for the ℓ^{th} scheduled inspection within an inspection cycle) has been set as an input for the model which can be varied to evaluate crew size variations. For the different aircraft types, a maximum efficient inspection crew size has been set at K_m as given below.

Aircraft Type	K_m (men)
CH-Heavy	5
CH-Medium	5
UH	3
AH	3
LOH	1

For crew sizes less than or equal to the appropriate K_m, all men are assumed to be contributing equally to the inspection effort. Each additional man in a crew larger than K_m is assumed to contribute only 75% of the effective man-hours contributed by the last additional man. Thus, if a 5-man crew inspected a UH for one hour, only 4.31 effective man-hours of work would be accomplished (3 (1) + 0.75 (1) + 0.75 (0.75) (1) = 4.31) at a cost of 5 man-hours for a downtime of one hour.

This would be considered as an effective inspection crew size ($K_e[\ell]$ = effective number of men contributing 100% to inspection tasks for the ℓ^{th} scheduled inspection), $K_e[\ell]$, of 4.31 men. For $K_c[\ell] \leq K_m$,

$$K_c[\ell] = K_e[\ell]$$

This inefficiency function has been assumed for several reasons: too many men working in the same area will decrease the working efficiency of each man; too many men working on the same inspection will result in organizational inefficiencies; and when too many men are required for a job, the actual skill levels of the men available are apt to become lower. Additional man-hours required because of crew size inefficiencies will be added to the overall scheduled inspection man-hour rate.

It has also been assumed that when a deteriorated component is discovered during a scheduled inspection, the normal number of men required to repair or replace that component are supplied in addition to the inspection crew. Thus, there will be preventive repair work performed by additional men during the time of the scheduled inspection which has to be evaluated for the scheduled downtime calculation. Such preventive repair times will overlap other preventive repair times as well as the scheduled inspection time. This overlap is accounted for by the K_s and K_p factors given in some of the equations to follow.

Scheduled Downtime Rate

$$SDT = N_c \sum_{\ell=1}^{N_\ell} SDT[\ell]$$

where

$$SDT[\ell] = \frac{EIT_s[\ell]}{K_e[\ell]} + K_s K_p (EMT_p[\ell]$$

and

$$EIT_s[\ell] = \sum_{i=1}^{N_g} (N_t[i]) \, (EIT_s[i,\ell])$$

and

$$EMT_p[\ell] = \sum_{i=1}^{N_g} (N_t[i]) \, (EMT[i]) \, (PR[i,\ell])$$

where

SDT = Scheduled downtime per 10,000 flt-hr

$SDT[\ell]$ = Scheduled downtime for the ℓ^{th} inspection interval

$EIT_s[\ell]$ = Elapsed inspection time for the ℓ^{th} scheduled inspection interval

$EIT_s[i,\ell]$ = Elapsed inspection time for a component of of the i^{th} type for the ℓ^{th} scheduled inspection interval (equal to zero if i^{th} type of component is not inspected at ℓ^{th} interval)

$EMT_p[\ell]$ = Cumulative elapsed maintenance time for preventive repairs for the ℓ^{th} inspection interval

$EMT[i]$ = Elapsed maintenance time for repair of a component of the i^{th} type since more than one man may be required to perform the maintenance action

$PR[i,\ell]$ = Preventive repairs for a component of the i^{th} type for the ℓ^{th} inspection interval (equal to zero if components of the i^{th} type not inspected at the ℓ^{th} inspection interval)

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

$K_e[\ell]$ = Effective inspection crew size for the ℓ^{th} inspection interval

K_p = Factor for overlap of preventive repair times

K_s = Factor or overlap of preventive repair time with inspection time

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

N_ℓ = Number of inspection intervals per cycle

The average preventive repair crew size for each inspection interval, K_R $[\ell]$, which is required to obtain the given SDT will be given as an output from the model. This is to be done mainly for manpower planning purposes related to an inspection scheme.

Preventive Repair Crew Size

$$K_R[\ell] = \frac{MH_p[\ell]}{EMT_p[\ell]}$$

where

$K_R[\ell]$ = Average prevention repair crew size for the ℓ^{th} inspection interval

$EMT_p[\ell]$ = Cumulative elapsed preventive repair maintenance time for the ℓ^{th} inspection interval

$MH_p[\ell]$ = Preventive repair man-hours for the ℓ^{th} inspection interval

The unscheduled aircraft downtime must also be evaluated for availability calculations. As in the unscheduled repair man-hour rate, the unscheduled repair inefficiency factor, K_i, is included. Similar to the scheduled downtime rate calculations, a factor allowing for the overlap of repair times, K_u, is also included. Since these repairs are assumed to have a random type distribution, only the overall rate per 10,000 flight-hours is calculated.

Unscheduled Downtime Rate

$$UDT = N_c \sum_{i=1}^{N_g} (K_i)(K_u)\ (N_i[i])\ (N_t[i])\ (EMT[i])\ (UR[i])$$

where

UDT = Unscheduled downtime per 10,000 flt-hr

$EMT[i]$ = Elapsed maintenance time for repair of a component of the i^{th} type

$UR[i]$ = Unscheduled repairs for a component of the i^{th} type between inspections

$N_j[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

K_i = Unscheduled repair inefficiency factor

K_u = Factor for overlap of unscheduled repair times

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

The summation of scheduled and unscheduled downtime rates yields the total downtime per 10,000 flight-hours, DT, of the aircraft. The following equation gives the availability of the aircraft such that the less time the aircraft is down for maintenance, the closer the availability factor is to 1.

Availability

$$A = 1 - \frac{DT}{T}$$

where

A = Availability

DT = Total downtime (scheduled and unscheduled) per 10,000 flt-hr

T = Calendar time for completion of 10,000 flt-hr (dependent on aircraft usage)

To allow for more insight into the factors contributing to availability, the two output parameters below are calculated.

Norm - Scheduled

$$NS = \frac{SDT}{T}$$

where

NS = Availability due to scheduled downtime (not operational due to scheduled maintenance)

SDT = Scheduled downtime per 10,000 flt-hr

T = Calendar time for completion of 10,000 flt-hr (dependent on aircraft usage)

Norm - Unscheduled

$$NU = \frac{UDT}{T}$$

where

NU = Availability due to unscheduled downtime (not operational due to unscheduled maintenance)

UDT = Unscheduled downtime per 10,000 flt-hr

T = Calendar time for completion of 10,000 flt-hr (dependent on aircraft usage)

Two very important factors in evaluating an aircraft maintenance system are the resultant safety and operational effectiveness of the aircraft. The reliability figures below are given as an indication of these evaluation factors.

Flight Reliability

$$R_f = 1 - \frac{AR_i}{FLTS}$$

where

R_f = Flight reliability

AR_i = Total in-flight aborts per 10,000 flt-hr

FLTS = Total number of flights per 10,000 flt-hr (dependent on aircraft type usage)

Mission Reliability

$$R_m = 1 - \frac{AR_m}{FLTS}$$

where

R_m = Mission reliability

AR_m = Total mission aborts per 10,000 flt-hr

FLTS = Total number of flights per 10,000 flt-hr (dependent on aircraft type usage)

APPENDIX II

LIST OF DOCUMENTATION

The following documentation items and RAMMIT reports have been received for use in the study.

TECHNICAL MANUALS

OH-6A

2	TM55-1520-214-CL	Pilot's Checklist
2	-214-ESC	Equipment Serviceability Criteria
2	-214-10	Operator's Manual; Observation OH6A (HUGHES)
2	-214-20	Organizational Maintenance Manual, OH6A (HUGHES)
2	-214-20P	Organizational Maintenance Parts List
2	-214-20 PMD	Daily Inspection Checklist
2	-214-20-PMP	Periodic Inspection Checklist
2	-214-20 PMP	Periodic Inspection Checklist UPDATE
2	-214-34P	DS&GS Maintenance Repair Parts and Special Tools List, Observation OH6A (HUGHES)
2	-214-35	DS, GS, Depot Maintenance Manual, Observation OH6A (HUGHES)
1	-214-35P	DS, GS, Depot Parts List

UH1D/H

1	TM55-1520-210-ESC	Equipment Serviceability Criteria
2	-210-10	Operator's Manual UH-1D/H
2	-210-20-PMD	Daily Inspection Checklist
2	-210-20-PMI	Intermediate Inspection Checklist

TECHNICAL MANUALS - Continued

UH1D/H (Continued)

2	TM55-1520-210-20-PMP	Periodic Inspection Checklist
1	-210-20-P-1	Organizational Parts List
1	-210-20-P-2	Organizational Parts List
2	-210-34-P-1	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-34-P-2	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-34-P-3	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-34-P-4	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-35-1	DS, GS, Depot Maintenance Manual, UH-1D/H
2	-210-35-2	DS, GS, Depot Maintenance Manual, UH-1D/H
1	-210-20	Organizational Maintenance Manual, UH-1D/H

UH-1C

1	TM55-1520-220-10	Operator's Manual, UH-1C Helicopter
1	-220-20-PMD	Daily Inspection Checklist
1	-220-20-PMI	Intermediate Inspection Checklist
1	-220-20-PMP	Periodic Inspection Checklist

TECHNICAL MANUALS - Continued)

AH-1G

1	TM55-1520-221-CL	Pilot's Checklist
2	-221-ESC	Equipment Serviceability Criteria
2	-221-PMD	Preventive Maintenance Daily Inspection Checklist, AH-1G
2	-221-PMP	Preventive Maintenance Periodic Inspection Checklist, AH-1G
2	-221-PMI	Preventive Maintenance Intermediate Inspection Checklist, AH-1G
3	-221-10	Operator's Manual, AH-1G
2	-221-20	Organizational Maintenance Manual, AH-1G
1	-221-20P	Organizational Parts List
2	-221-20-PMD	Daily Inspection Checklist
2	-221-20-PMP	Periodic Inspection Checklist
2	-221-20-PMI	Intermediate Inspection Checklist
2	-221-35	DS&GS, Depot Maintenance Manual, AH-1G
2	-221-35P-1	DS&GS, Depot Parts and Special Tools List: Attack AH1G (BELL) Flight Trainer TH-1G (BELL)
2	-221-35P-2	DS&GS, Depot Parts and Special Tools List: Attack AH1G (BELL) Flight Trainer TH-1G (BELL)
1	-221-35P-3	DS&G, Depot Parts and Special Tools List: Attack AH1G (BELL) Flight Trainer TH-1G (BELL)

TECHNICAL MANUALS - Continued

CH-47 A, B, C

1	TM55-1520-209-CL	Operator's and Crew Member's Checklist, CH-47A
1	-209-ESC	Equipment Serviceability Criteria
2	-209-10	Operator's Manual, CH-47A
1	-209-10CL	Pilot's Checklist
1	-209-20	Organizational Maintenance
2	-209-20-1	Organizational Maintenance Manual, CH-47A
2	-209-20-2	Organizational Maintenance Manual, CH-47A
2	-209-20-PMD	Daily Inspection Checklist
2	-209-20-PMI	Intermediate Inspection Checklist
2	-209-20-PMP	Periodic Inspection Checklist
2	-209-34-P-1	DS&GS Maintenance Repair Parts/ Special Tools List, Cargo Transport CH-47A,B, C (VERTOL)
2	-209-34-P-2	DS&GS Maintenance Repair Parts/ Special Tools List, Cargo Transport CH-47A, B, C (VERTOL)
2	-209-34-P-3	DS&GS Maintenance Repair Parts/ Special Tools List, Cargo Transport CH-47A, B, C (VERTOL)
1	-209-35	DS&GS Depot Maintenance Manual
2	-209-35-1	DS&GS Depot Maintenance Manual
2	-209-35-2	DS&GS Depot Maintenance Manual
2	-209-35-3	DS&GS Depot Maintenance Manual
2	-209-35-P-1	DS&GS and Depot Parts List
2	-209-35-P-2	DS&GS and Depot Parts List
1	-209-35-P-3	DS&GS and Depot Parts List

TECHNICAL MANUALS - Continued

CH-54A

2	TM55-1520-217-10-1	Operator's Manual
2	-217-20P-1	Organizational Parts List
2	-217-20P-2	Organizational Parts List
2	-217-20-PMD-1	Daily Inspection Checklist
2	-217-20-PMI-1	Intermediate Inspection Checklist
2	-217-20-PMP-1	Periodic Inspection Checklist
1	-217-20-PMD-2	Daily Inspection Checklist
1	-217-20-PMI-2	Intermediate Inspection Checklist
1	-217-20-PMP-2	Periodic Inspection Checklist
2	-217-20/1-2	Organizational Maintenance Manual, CH-54A
2	-217-34P-1	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
	-217-34P-2	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
2	-217-34P-3	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
2	-217-34P-4	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
2	-217-34P-5	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
1	-217-35P-1	DS&GS Parts List

TECHNICAL MANUALS - Continued

CH-54A (Continued

1	TM55-1520-217-35P-2	DS&GS Parts List
1	-217-35P-3	DS&GS Parts List
2	-217-35/1-1	DS&GS Depot Maintenance Manual, CH-54A
2	-217-35/1-2	DS&GS Depot Maintenance Manual, CH-54A

OH-58A

1	TM55-1520-228-10	Operator's Manual, OH-58A
1	-228-20	Organizational Maintenance Manual
1	-228-20P	Organizational Parts List
1	-228-20-PMD	Daily Inspection Checklist
2	-228-34P	DS&GS Maintenance Repair Parts List, Observation OH-58A (BELL)
2	-228-35	DS&GS Maintenance Manual

TECHNICAL BULLETIN

TB-55-1500-301-25	"Army Aircraft Preventive Maintenance Inspection System", 24 February 1970

USABARR - ACCIDENT REPORT DATA

Printouts: UH-1D; UH-1H; AH-1G; CH-54 A/B; CH-47 A/B/C; OH-6A

RAMMIT REPORTS

TALCMOR - Twenty-Five Maintenance Life Histories for each of the following: OH-6A, UH-1H, AH-1G, CH-47, A, B, C.

RIADS - One each AH-1G, CH-47A, CH-47B, CH-54A, UH-1H

MIRF - One each AH-1G, OH-6A, UH-1H

NAVY 3M MAINTENANCE RECORDS

3M tapes describing maintenance actions for a two-year period ending June 1971 for the following aircraft types:

AH-1
UH-1
CH-46
CH-53
TH-57

DATA ACQUISITION MEETING

In addition to formal documentation, interviews with Army aircraft specialists provided important study input data.

APPENDIX III

AIRCRAFT CONFIGURATION FILE

AIRCRAFT CONFIGURATION FILE PAGE 1

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
110000	AIRFRAME SYSTEM					
110100	FUSELAGE SUBSYSTEM					
110101	FRAME/STRINGER	3	3	9	7	1
110102	SKIN	2	2	9	5	1
110103	WINDSHIELD	3	2	3	5	2
110104	WINDOW	0	10	14	8	2
110105	ESCAPE HATCH	0	0	4	0	0
110106	HATCH JETTISON MECHANISM	0	0	2	0	0
110107	CARGO RAMP	0	0	1	0	0
110108	HORIZONTAL STABILIZER SECTION	2	2	0	1	1
110109	STEP/HAND HOLD	2	12	23	22	1
110110	ANTENNA/SUPPORT	7	13	7	5	3
110200	COCKPIT/CABIN DOOR SUBSYSTEM					
110201	SLIDING CABIN DOOR	0	2	1	0	0
110202	HINGED CABIN DOOR	2	2	0	3	4
110203	DOOR STRUT SET	2	0	0	0	0
110204	DOOR LATCH MECHANISM	2	4	1	3	4
110205	DOOR JETTISON MECHANISM	2	4	1	2	4
110300	ACCESS DOOR/COWL SUBSYSTEM					
110301	HINGED ACCESS DOOR/COWLING	19	8	20	7	6
110302	HINGED WORK PLATFORM	0	0	6	0	0
110303	DOOR/COWL/PLTFM LATCH MECHSM	30	16	39	11	8
110304	REMOVABLE FAIRING/COWLING	14	4	4	8	5
110305	REMOVABLE ACCESS PANEL	12	14	11	21	4
110400	COCKPIT/CABIN INTERIOR SUBSYS					
110401	INSTRUMENT CONSOLE	2	1	4	4	1
110402	EQUIPMENT RACK	0	0	2	0	0
110403	FLOOR PANEL	4	7	15	0	0
110404	SEAT TRACK	2	2	2	3	0
110500	ENG COMPARTMENT/TUNNEL SUBSYS					
110501	FIREWALL	2	2	0	2	3
110502	SCUPPER/DRAIN	0	2	13	0	1
110503	HANGER BRG SUPPT STRUCTURE	3	4	8	9	8
110600	FITTINGS/HARDPOINT SUBSYSTEM					
110601	ENGINE FITTING	6	6	8	4	5
110602	TRANSMISSION/GEARBOX FITTING	1	1	12	12	7
110603	TAIL BOOM ATTACH FITTING	4	4	0	4	4
110604	LANDING GEAR FITTING	4	4	10	6	4
110605	CARGO HOOK FITTING	0	1	2	14	0
110606	ARMAMENT FITTING	5	0	0	0	1

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
120000	FUSELAGE COMPARTMENTS SYSTEM					
120100	COCKPIT SUBSYSTEM					
120101	INSTRUMENT PANEL	2	1	4	4	1
120102	GLARE SHIELD	2	0	2	0	1
120103	OVERHEAD PANEL	0	1	2	2	1
120104	PILOT/COPILOT SEAT/CUSHION	2	2	2	3	2
120105	SEAT ADJUSTMENT MECHANISM	1	2	2	2	0
120106	INERTIA REEL	2	2	2	3	2
120107	SHOULDER HARNESS/LAP BELT	2	4	2	3	2
120108	ARMOR PLATE SET	3	2	8	3	3
120109	ARMR PLT QUICK RELEASE MECHNSM	0	2	0	3	2
120110	RELIEF TUBE	0	0	3	1	0
120111	MAP CASE	1	1	0	1	1
120112	SPARE LAMP STORAGE BOX	1	1	2	0	0
120200	CABIN SUBSYSTEM					
120201	PASSENGER SEAT	0	11	33	1	2
120202	LAP BELT	0	11	33	1	2
120203	INSULATION BLANKET PANEL	0	5	8	6	2
120204	BLOCK & TACKLE ASSY	0	0	1	0	0
120300	RAMP ACTUATE/CONTROL SUBSYS					
120301	RAMP CONTROL PANEL	0	0	1	0	0
120302	RAMP ACTUATE CYLINDER & LOCK	0	0	2	0	0
120400	HATCH DOOR ACTUATION SUBSYS					
120401	HATCH DOOR ACTUATING CYLINDER	0	0	1	0	0
120402	DOOR LATCH ACTUATING CYLINDER	0	0	1	0	0

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
130000	LANDING GEAR SYSTEM					
130100	MLG SKID TYPE SUBSYSTEM					
130101	SKID TUBE	2	2	0	0	2
130102	SKID TUBE SHOE	2	2	0	0	4
130103	CROSS TUBE	2	2	0	0	2
130104	CROSS TUBE SUPPORT	4	4	0	0	4
130105	STRUT FAIRING	4	0	0	0	0
130200	MLG OLEO TYPE SUBSYSTEM					
130201	SHOCK STRUT	0	0	4	3	0
130202	DRAG STRUT	0	0	0	1	0
130203	SCISSORS ASSEMBLY	0	0	4	3	0
130204	SHIMMY DAMPER ASSEMBLY	0	0	0	1	0
130205	WHEEL LOCK	0	0	2	1	0
130207	WHEEL & TIRE ASSEMBLY	0	0	6	3	0
130300	MLG BRAKE SUBSYSTEM					
130301	POWER BRAKE MASTER CYLINDER	0	0	2	2	0
130302	BRAKE ASSEMBLY	0	0	8	2	0
130303	PARKING BRAKE CONTROL	0	0	1	1	0
130304	PARKING BRAKE CABLE	0	0	1	1	0
130305	PARKING BRAKE LINKAGE/SPRING	0	0	1	1	0
130306	PARKING BRAKE VALVE	0	0	1	1	0
130400	POWER STEERING SUBSYSTEM					
130401	RHEOSTAT	0	0	1	0	0
130402	ELECTRICAL HARNESS	0	0	1	0	0
130403	POWER STEERING HYD UNIT	0	0	1	0	0
130500	TAIL SKID SUBSYSTEM					
130501	TAIL SKID SHOCK STRUT	0	0	0	1	0
130502	TAIL SKID TUBE	1	1	0	1	1
130503	TAIL SKID ACTUATOR	0	0	0	1	0

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
140000	FLIGHT CONTROLS SYSTEM					
140100	COLLECTIVE PITCH CNTLS SUBSYS					
140101	COLLECTIVE STICK ASSEMBLY	2	2	2	3	2
140102	FRICTION BRAKE	1	2	2	2	1
140103	TORQUE TUBE	0	1	0	2	1
140104	PUSH-PULL ROD	4	3	16	16	3
140105	CRANK/LEVER/ARM, ETC	4	3	16	16	4
140106	MAGNETIC BRAKE	0	0	1	0	0
140107	DAMPER ASSEMBLY	0	0	3	3	0
140108	ENGINE DROOP ELIMINATOR UNIT	0	0	1	1	0
140109	BOOT/SEAL	2	3	2	5	2
140200	CYCLIC CONTROLS SUBSYSTEM					
140201	CYCLIC CONTROL STICK	2	2	2	3	2
140202	STICK TRIM ACTUATOR	0	0	1	3	0
140203	LONGITUDINAL STICK POS INDCATR	0	0	2	3	0
140204	TORQUE TUBE	1	1	0	0	1
140205	PUSH-PULL ROD	12	9	16	26	6
140206	CRANK/LEVER/ARM, ETC	8	3	16	31	7
140207	MAGNETIC BRAKE	2	2	1	0	2
140208	FORCE GRADIENT ASSEMBLY	2	2	3	3	2
140209	LONGTDNL CYCLIC TRIM SPD ACTR	0	0	2	1	0
140210	BOOT/SEAL	4	4	2	9	2
140300	CONTROLS MIXER SUBSYSTEM					
140301	CONTROLS MIXER ASSEMBLY	0	1	2	1	0
140400	MAST CONTROLS SUBSYSTEM					
140401	SWASHPLATE ASSEMBLY	1	1	0	0	1
140403	SCISSOR & SLEEVE ASSEMBLY	1	1	2	3	1
140404	LINK/ROD/LEVER, ETC	3	3	6	0	0
140405	SWASHPLATE BOOT/SEAL	2	2	2	1	1
140406	SWASHPLATE ASSY (HEAVY HELO)	0	0	2	1	0
140500	TAIL ROTOR CONTROLS SUBSYSTEM					
140501	PEDAL ASSEMBLY	4	4	0	4	4
140502	PEDAL ADJUSTMENT MECHANISM	2	2	0	4	2
140503	TAIL ROTOR TRIM ACTUATOR	0	0	0	4	0
140504	PUSH-PULL ROD	11	8	0	14	7
140505	CRANK/LEVER/ARM, ETC	11	10	0	15	9
140506	MAGNETIC BRAKE	1	1	0	0	0
140507	FORCE GRADIENT ASSEMBLY	1	1	0	0	0
140508	PULLEY	4	6	0	22	0
140509	QUADRANT	1	1	0	2	0
140510	CABLE ASSEMBLY/TURNBUCKLE	4	4	0	12	0
140511	FAIRLEAD	6	10	0	9	0
140512	CHAIN ASSEMBLY	1	1	0	0	0
140600	TAIL ROTOR PITCH CNTRL SUBSYS					

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
140601	CROSS HEAD/STAR	1	1	0	1	1
140602	PITCH CHANGE LINK	2	2	0	4	2
140700	ELEVATOR CONTROLS SUBSYSTEM					
140701	PUSH-PULL ROD	6	6	0	0	0
140702	CRANK/LEVER/ARM, ETC	5	5	0	0	0
140703	TORQUE TUBE	1	1	0	0	0
140800	STABILITY AUGMENTATION SUBSYS					
140801	SAS GYRO	3	0	3	1	0
140802	SAS TRANSDUCER	4	0	7	2	0
140803	SAS CONTROL ACTUATOR	3	0	3	4	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
150000	ROTOR SYSTEM					
150100	MAIN ROTOR SUBSYSTEM					
150101	M.R. BLADE ASSEMBLY	2	2	6	6	2
150102	DRAG BRACE	2	2	0	0	2
150103	DAMPER ASSEMBLY	0	0	6	6	0
150104	DAMPER RESERVOIR	0	0	0	1	0
150105	DAMPER HOSE	0	0	0	6	0
150106	PITCH VARYING HOUSING/ASSY	0	2	0	0	2
150107	TENSION-TORSION STRAP SET	2	2	6	0	2
150108	HUB ASSEMBLY	1	1	0	0	1
150109	HUB OIL RESERVOIR	0	4	20	0	4
150111	CENTRIFUGAL DROOP STOP ASSY	0	0	6	6	0
150112	ANTI-FLAP RESTRAINER	0	0	0	6	0
150113	PITCH HORN	2	2	0	6	2
150114	PITCH LINK	0	2	6	6	0
150115	K BAR	0	0	0	6	0
150116	CONTROL TUBE/ROD	2	4	0	6	2
150117	STABILIZER BAR ASSEMBLY	0	1	0	0	0
150118	STABILIZER DAMPER	0	2	0	0	0
150119	ROTARY WING HEAD FAIRING	0	0	0	1	0
150120	SAND DEFLECTOR	2	0	0	0	0
150121	BOOT/COVER	0	0	6	0	1
150122	PITCH VARY HSG/ASSY (HVY HELO)	0	0	6	6	0
150123	HUB ASSEMBLY (HEAVY HELO)	0	0	2	1	0
150200	TAIL ROTOR SUBSYSTEM					
150201	T.R. BLADE ASSEMBLY	2	2	0	4	2
150202	SLEEVE & SPINDLE ASSEMBLY	0	0	0	4	0
150203	HUB ASSEMBLY	1	1	0	1	1
150204	OIL RESERVOIR	0	0	0	1	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
220000	TURBOSHAFT ENGINE SYSTEM					
220100	ENGINE ASSEMBLY SUBSYSTEM					
220101	ENGINE ASSEMBLY	1	1	2	2	1
220200	ENG REPLACBLE COMPNENTS SUBSYS					
220201	COMBUSTION CASE FUEL DRAIN VLV	0	0	0	2	1
220202	EXHAUST EJECTOR	1	0	0	0	2
220203	INSULATION BLANKET	1	1	0	0	0
220204	FIRESHIELD	1	1	2	0	1
220300	ENGINE FUEL SUBSYSTEM					
220301	FUEL CONTROL ASSEMBLY	1	1	2	2	1
220302	FUEL CONTROL STRAINER	1	1	2	4	3
220303	SERVO FILTER	1	1	2	0	0
220305	OVERSPEED GOVERNOR	1	1	2	2	1
220306	FUEL BOOST PUMP	1	1	2	4	1
220307	FUEL FILTER	1	1	2	6	1
220308	FUEL HEATER	0	0	0	2	0
220309	FLOW DIVIDER ASSEMBLY	0	0	2	2	0
220310	MAIN & STARTING FUEL MANIFOLD	1	1	2	2	0
220311	LINE/HOSE	3	3	6	14	1
220400	ENGINE LUBRICATION SUBSYSTEM					
220401	OIL TANK	1	1	2	2	0
220402	OIL STRAINER	2	2	4	2	0
220403	OIL FILTER	1	1	2	4	1
220404	LIQ-TO-LIQ OIL COOLER	1	1	2	2	0
220405	LINE/HOSE	5	5	10	6	4
220500	ENGINE ELECTRICAL SUBSYSTEM					
220501	TEST SWITCH	0	1	2	0	0
220502	ELECTRICAL HARNESS ASSEMBLY	0	1	2	0	0
220503	FIRE DETECTOR ELEMENT	0	2	4	0	0
220600	ENGINE IGNITION SUBSYSTEM					
220601	IGNITION EXCITER	1	1	2	2	1
220602	IGNITION HARNESS	1	1	2	2	1
220603	IGNITER PLUG	4	4	8	4	1
220700	BLEED AIR SUBSYSTEM					
220701	ANTI-ICING PROBE	1	1	2	2	0
220702	AIRBLEED ACTUATOR/STRAINER	1	1	2	4	1
220703	AIR VALVE ASSEMBLY	1	1	6	4	0
220704	LINE/HOSE	5	5	10	8	1

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
240000	AUXILIARY POWER PLANT SYSTEM					
240100	APP ENGINE ASSEMBLY SUBSYSTEM					
240101	APP ENGINE ASSEMBLY	0	0	1	1	0
240200	APP REPLACEABLE COMPNT SUBSYS					
240201	AIR INLET SCREEN	0	0	1	1	0
240202	AIR INLET DUCT	0	0	1	0	0
240204	INSULATION BLANKET	0	0	1	0	0
240300	APP FUEL SUBSYSTEM					
240301	FUEL CONTROL ASSEMBLY	0	0	1	1	0
240302	ACCELLERATION CONTROL ASSY	0	0	1	1	0
240303	RATED SPEED CONTROL ASSY	0	0	0	1	0
240304	FUEL BOOST PUMP	0	0	1	0	0
240305	FUEL FILTER	0	0	1	2	0
240306	PRESSURE SWITCH	0	0	1	1	0
240307	FUEL SHUTOFF VALVE	0	0	1	1	0
240308	LINE/HOSE	0	0	3	2	0
240400	APP LUBRICATION SUBSYSTEM					
240401	OIL RESERVOIR	0	0	1	0	0
240402	OIL FILTER	0	0	1	1	0
240403	OIL RELIEF VALVE	0	0	0	1	0
240404	LINE/HOSE	0	0	1	0	0
240500	APP CONTROL SUBSYSTEM					
240501	START SWITCH	0	0	1	1	0
240502	RELAY	0	0	1	1	0
240503	SPEED CONTROL SWITCH	0	0	0	1	0
240600	APP IGNITION SUBSYSTEM					
240601	IGNITION UNIT	0	0	1	1	0
240602	EXCITER	0	0	1	1	0
240603	IGNITION HARNESS	0	0	1	1	0
240604	IGNITER PLUG	0	0	1	1	0
240700	APP HYDRAULIC SUBSYSTEM					
240701	HYDRAULIC PUMP MOTOR	0	0	1	1	0
240702	HAND PUMP	0	0	0	1	0
240703	ACCUMULATOR	0	0	0	1	0
240704	SOLENOID VALVE	0	0	0	1	0
240705	LINE/HOSE	0	0	2	3	0
240800	APP INSTRUMENT SUBSYSTEM					
240801	THERMOCOUPLE	0	0	1	1	0
240802	HOURMETER	0	0	1	1	0
240900	APP ENGINE MOUNT SUBSYSTEM					
240901	TUBULAR MOUNT	0	0	[illegible]	3	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
240902	RUBBER SHOCK MOUNT	0	0	0	1	0

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
260000	DRIVES - TRANSMISSIONS SYSTEM					
260100	MAIN XMSN DRIVES SUBSYSTEM					
260101	ENGINE DRIVE SHAFT	1	1	0	0	1
260102	SHAFT COUPLING - THOMAS TYPE	0	0	12	2	0
260103	SHAFT COUPLING - ZURN TYPE	2	2	0	0	2
260104	SHAFT TO COUPLING CLAMP	2	2	0	0	2
260105	HANGER BEARING	0	0	6	0	0
260106	BEARING SHOCK MOUNT	0	0	8	0	0
260107	ENG/SYNC DRIVE SHFT (HVY HELO)	0	0	11	2	0
260200	TAIL ROTOR/AUX POWER DR SUBSYS					
260201	T.R./AUX POWER PLANT SHAFT	5	6	0	8	4
260202	SHAFT COUPLING - THOMAS TYPE	0	0	0	11	5
260203	SHAFT COUPLING - ZURN TYPE	10	12	0	0	0
260204	SHAFT TO COUPLING CLAMP	10	12	0	0	0
260205	HANGER BEARING	3	4	0	6	8
260206	VISCOUS DAMPER	0	0	0	6	0
260300	MAIN ROTOR DRIVE SUBSYSTEM					
260301	ROTOR DRIVE SHAFT & HSG ASSY	0	0	1	0	0
260302	RDS MAGNETIC CHIP DETECTOR	0	0	1	0	0
260400	FAN DRIVES SUBSYSTEM					
260401	FAN DRIVE SHAFT ASSEMBLY	0	0	1	0	0
260402	DRIVE BELT	0	0	0	2	0
260403	DRIVE BELT PULLEY	0	0	0	3	0
260500	SEPARATE CLUTCH UNIT SUBSYS					
260501	FREE WHEELING ASSY	0	0	0	0	1
260502	MAG CHIP DETECTOR	0	0	0	0	1
260503	AUX POWER PLANT SHAFT CLUTCH	0	0	0	1	0
260600	TRANSMISSION/GEARBOX SUBSYSTEM					
260601	ENGINE TRANSMISSION ASSY	0	0	2	0	0
260602	COMBINING TRANSMISSION ASSY	0	0	1	0	0
260603	MAIN ROTOR TRANSMISSION ASSY	1	1	0	0	1
260604	INTERMEDIATE GEARBOX ASSY	1	1	0	0	0
260605	TAIL ROTOR GEARBOX ASSY	1	1	0	0	1
260606	M.R. TRANSMISSION (HVY HELO)	0	0	2	1	0
260607	INT GEARBOX ASSY (HEAVY HELO)	0	0	0	1	0
260608	T.R. GEARBOX ASSY (HEAVY HELO)	0	0	0	1	0
260700	TRANSMISSION OIL SUBSYSTEM					
260701	OIL TANK	0	0	1	0	0
260702	OIL PUMP	0	0	3	0	1
260703	PRESSURE RELIEF VALVE	0	0	5	1	1
260704	OIL FILTER	2	2	6	1	1
260705	OIL COOLER	1	1	5	1	1
260706	THERMOSTATIC VALVE	1	1	5	1	1

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
260707	LINE/HOSE	18	10	32	14	5
260800	MOUNTS SUBSYSTEM					
260801	PYLON MOUNT ASSEMBLY	1	1	0	0	0
260802	DAMPER	5	5	0	0	1
260803	LIFT LINK	1	1	0	0	0
260804	TUBULAR MOUNT ASSY	0	0	0	0	2
260900	ROTOR BRAKE SUBSYSTEM					
260901	BRAKE ASSEMBLY	0	0	0	1	0
260902	DISC	0	0	0	1	0
260903	LINE/HOSE	0	0	0	3	0
260904	SWITCH	0	0	0	1	0
260905	THROTTLE INTERLOCK	0	0	0	1	0
260906	SOLENOID	0	0	0	1	0
260907	WIRING	0	0	0	1	0

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
290000	POWER PLANT INSTALLATION SYS					
290100	ENG MOUNT/SUSPENSION SUBSYS					
290101	ENGINE MOUNT	3	3	8	16	3
290102	ENGINE MOUNT BEARING	2	2	0	0	0
290103	TORQUE SENSOR	0	0	0	2	0
290200	ENG AIR PARTCLE SEPARTR SUBSYS					
290201	PARTICLE SEPARATOR ASSY	1	1	0	0	1
290202	DOOR ACTUATOR	2	0	0	1	0
290203	CABLE ASSEMBLY	0	0	0	2	0
290204	PULLEY	0	0	0	4	0
290205	CONTROL LEVER	1	0	0	1	0
290206	PRESSURE SWITCH	1	0	0	0	0
290207	WIRING HARNESS	1	0	0	0	0
290208	PARTICLE SEP ASSY (HEAVY HELO)	0	0	0	1	0
290300	AIR INDUCTION SUBSYSTEM					
290301	INLET SCREEN	1	1	2	0	0
290302	INLET DUCT/PLENUM CHAMBER	1	1	0	0	0
290303	ALTERNATE AIR BYPASS DOOR	0	0	0	4	0
290400	AIRCRAFT EXHAUST SUBSYSTEM					
290401	TAILPIPE	1	1	0	2	0
290402	TAILPIPE ADAPTER/EXTENSION	1	0	0	0	0
290403	TAILPIPE CLAMP/COUPLING	1	1	0	0	0
290500	AIRCRAFT BLEED AIR SUBSYSTEM					
290501	BLEED AIR VALVE	1	1	0	0	0
290502	LINE/HOSE	13	4	2	0	5
290600	ENG ANTI-ICE/DE-ICE SUBSYSTEM					
290601	TEMPERATURE SENSOR	1	1	2	0	1
290602	ENGINE ANTI-ICE SWITCH	1	1	1	0	1
290603	SOLENOID VALVE	1	1	2	0	1
290604	WIRING HARNESS	1	1	1	0	1
290700	START SUBSYSTEM					
290701	STARTER SWITCH	1	1	2	2	1
290702	STARTER RELAY	1	1	0	0	1
290703	STARTER SOLENOID	1	1	2	2	1
290704	STARTER GENERATOR	1	1	0	0	1
290705	HYDRAULIC STARTER	0	0	2	2	0
290706	STARTER PRESSURE SWITCH	0	0	0	2	0
290707	ENG START HYD MANIFOLD VALVE	0	0	2	2	0
290800	THROTTLE/POWER LEVER SUBSYSTEM					
290801	CONTROL QUADRANT ASSY	0	0	2	1	0
290802	ENGINE CONDITION CONTROL BOX	0	0	1	0	0
290803	THROTTLE TWIST GRIP MECHANISM	2	2	0	0	2

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
290804	ENGINE CONTROL LINKAGE	28	18	4	8	2
290805	CABLE/PULLEY	0	0	0	16	0
290806	CONTROL CABLE TENSIONER	0	0	0	4	0
290807	FLEX CABLE	0	0	0	2	1
290808	BOOT/SEAL	2	2	0	0	1
290809	DROOP COMPENSATOR CAM BOX	1	1	0	0	1
290810	TRIM SWITCH	2	2	3	4	1
290811	RPM CONTROL ACTUATOR	1	1	2	2	1
290812	ELECTRICAL HARNESS ASSY	1	1	0	0	0
290900	RPM WARNING SUBSYSTEM					
290901	ENGINE SPEED SENSITIVE SWITCH	1	1	0	2	1
290902	RPM WARNING LIMIT DETECTOR/BOX	1	1	0	2	1
290903	AUDIO WARNING UNIT	1	1	0	0	1
291000	AIRCRAFT LIBRICATION SUBSYSTEM					
291001	OIL TANK	0	0	0	0	1
291002	OIL COOLER BLOWER	1	1	1	1	1
291003	BLOWER DUCT	0	1	0	0	0
291004	OIL COOLER	1	1	0	0	1
291005	THERMOSTATIC BYPASS VALVE	1	1	0	0	1
291006	SOLENOID SHUT-OFF VALVE	1	1	0	0	1
291007	LINE/HOSE	19	22	0	0	12

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
410000	AIR COND/SURFCE ICE CONTRL SYS					
410100	WINDSHIELD ANTI-ICE SUBSYSTEM					
410101	THERMOSTAT	0	0	1	0	0
410102	ANTI-ICE SWITCH	0	0	1	0	0
410103	HEAT RELAY	0	0	1	0	0
410104	HEATER ELEMENT	0	0	1	0	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
420000	ELECTRICAL SYSTEM					
420100	AC POWER SUBSYSTEM					
420101	GENERATOR	0	0	2	2	0
420102	VOLTAGE REGULATOR	0	0	2	2	0
420103	RELAY	1	1	2	3	0
420104	CURRENT LIMITER	20	20	30	25	0
420105	RECEPTACLE	1	4	1	1	1
420106	TRANSFORMER	1	1	2	2	0
420107	TRANSFORMER RECTIFIER	1	1	2	2	0
420108	INVERTER	2	2	0	2	1
420109	CONTROL PANEL	2	2	2	1	1
420200	DC POWER SUPPLY SUBSYSTEM					
420201	GENERATOR	0	1	0	0	0
420202	VOLTAGE REGULATOR	1	2	0	0	1
420203	RELAY	1	2	4	3	5
420204	CURRENT LIMITER	75	75	15	25	34
420205	RECEPTACLE	1	1	1	2	1
420206	BATTERY	1	1	1	1	1
420207	BATTERY SUMP JAR	0	1	1	0	0
420300	ELECT PWR DISTRIBUTION SUBSYS					
420301	MASTER SWITCH CONTROL PANEL	1	1	1	1	1
420302	AIRCRAFT WIRING	1	1	1	1	1

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
440000	LIGHTING SYSTEM					
440100	INTERIOR LIGHTS SUBSYSTEM					
440101	COCKPIT/CABIN LIGHT	2	4	9	3	1
440102	INSTRUMENT LIGHT	30	23	20	59	30
440103	CONTROL PANEL	1	1	2	2	1
440200	EXTERIOR LIGHTS SUBSYSTEM					
440201	LANDING LIGHT	1	1	0	0	2
440202	SEARCH LIGHT	1	1	2	2	0
440203	POSITION/FORMATION LIGHT	4	10	10	6	3
440204	ANTI-COLLISION LIGHT	1	1	2	2	2
440205	FLASHER UNIT	1	1	1	1	1
440206	CONTROL PANEL	1	1	0	1	1

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
450000	HYDRAULIC POWER SYSTEM					
450100	HYDRAULIC SOURCE/DISTRI SUBSYS					
450101	RESERVOIR	2	1	3	5	1
450102	HYDRAULIC PUMP	2	1	2	5	1
450103	HYDRAULIC HAND PUMP	0	0	1	0	0
450104	HYDRAULIC FILTER	4	2	8	8	2
450105	ACCUMULATOR	0	0	3	0	0
450106	SOLENOID VALVE	3	1	19	14	1
450107	RELIEF VALVE	0	0	4	13	0
450108	CHECK VALVE	20	10	10	6	1
450109	DRAIN VALVE	1	1	0	1	0
450110	HYDRAULIC MOTOR	0	0	2	0	0
450111	SWITCH	2	1	1	1	1
450112	HOSE/LINE	95	45	340	300	14
450200	HYDRAULIC BOOST SUBSYSTEM					
450201	ACCUMULATOR	2	0	0	0	0
450202	FLIGHT BOOST MANIFOLD	0	0	2	1	0
450203	CONTROL/PILOT VALVE	0	0	13	6	0
450204	CYLINDER	4	4	4	4	3
450206	IRRIVERSIBLE VALVE	0	3	0	0	3
450207	LOCK-OUT VALVE	1	0	0	8	0
450208	PRESSURE REDUCER VALVE	0	0	4	4	0
450300	HYD PRESSURE INDICATING SUBSYS					
450301	PRESSURE SWITCH	0	0	0	7	0
450400	HYDRAULIC COOLING SUBSYSTEM					
450401	COOLER BLOWER	0	0	1	0	0
450402	BLOWER DUCT	0	0	1	0	0
450403	ELECTRO-HYDRAULIC MOTOR	0	0	1	0	0
450404	HYD FLUID COOLER	0	0	1	0	0
450405	THERMOSTAT	0	0	1	0	0

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
460000	FUEL SYSTEM					
460100	FUEL SUPPLY/DISTRI SUBSYSTEM					
460101	FUEL CELL	2	4	6	5	1
460102	SUMP PUMP	2	2	6	5	1
460103	FUEL FILTER	1	1	2	2	1
460104	ENGINE FUEL PURIFIER	0	0	2	0	0
460105	FUEL SELECTOR VALVE	0	0	1	2	0
460106	LINE/HOSE	25	40	20	25	3
460108	PRESSURE FUELING ADAPTER	0	0	0	1	0
460109	DEFUELING VALVE	1	2	1	1	0
460110	SUMP DRAIN	2	4	12	5	1
460200	AUX POWER PLANT FUEL SUBSYSTEM					
460201	FUEL PUMP	0	0	1	1	0
460202	SOLENOID VALVE	0	0	1	1	0
460203	FUEL SHUTOFF VALVE	0	0	0	1	0
460204	LINE/HOSE	0	0	4	5	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
490000	MISCELLANEOUS UTILITIES SYSTEM					
490100	FIRE WARNING/DETECT SUBSYSTEM					
490101	FIRE DETECTION ELEMENT	0	0	0	16	0
490102	AMPLIFIER	0	0	0	4	0
490103	FIRE DETECTION CONTROL	0	0	0	4	0
490104	FIRE DETECTION TEST SWITCH	0	0	0	2	0
490200	FIRE EXTINGUISHING SUBSYSTEM					
490201	CONTROL SWITCH	0	0	1	0	0
490202	WIRING HARNESS	0	0	1	0	0
490203	NITROGEN FIRE BOTTLE	0	0	2	0	0
490204	LINE/HOSE	0	0	5	0	0
490300	WINDSHIELD WIPER SUBSYSTEM					
490301	WIPER CONTROL PANEL	0	1	1	1	0
490302	WIPER MOTOR	0	2	1	1	0
490303	RELAY	0	1	1	1	1
490304	WIRING HARNESS	0	1	0	1	0
490305	MECHANICAL LINKAGE	0	0	3	6	0
490306	BLADE ARM	0	2	2	2	0
490307	BLADE	0	2	2	2	0
490400	BLEED AIR RAIN REMOVAL SUBSYS					
490401	HEAT/RAIN REMOVAL VALVE	1	0	0	0	0
490402	LINE/HOSE	8	0	0	0	0
490500	WINDSHIELD WASHER SUBSYSTEM					
490501	WASHER SWITCH	0	0	0	1	0
490502	ELECTRIC PUMP	0	0	0	1	0
490503	RESERVOIR	0	0	0	1	0
490504	WASHER NOZZLES	0	0	0	2	0
490600	CARGO SUSPENSION SUBSYSTEM					
490601	CARGO SUSPENSION ASSEMBLY	0	1	1	5	0
490602	CARGO HOOK ASSEMBLY	0	1	1	5	0
490603	CARGO RELEASE PEDAL/CABLE	0	1	1	6	0
490604	RELEASE SOLENOID	0	1	1	2	0
490605	RELEASE RELAY	0	1	1	2	0
490606	WINCH CONTROL PANEL	0	0	2	3	0
490607	HYDRAULIC WINCH ASSEMBLY	0	0	1	1	0
490608	LOAD LEVELER CYLINDER	0	0	0	4	0
490609	WINCH PUMP	0	0	0	1	0
490610	RELIEF/SHUTOFF VALVE	0	0	2	5	0
490611	LINE/HOSE	0	0	4	15	0
490612	WINCH CABLE	0	0	1	1	0
490613	LIMIT SWITCH	0	0	2	0	0
490614	CONTROL PANEL	0	0	1	0	0
490615	GUILLOTINE	0	0	1	0	0
490700	COMBUSTION HEAT/DEFOG SUBSYS					

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
490701	COMBUSTION HEATER ASSEMBLY	0	1	1	1	0
490702	AIR BLOWER	0	1	1	1	0
490703	VENTILATION/HEATER DUCT	0	5	12	12	0
490704	AIR PRESSURE SWITCH	0	1	1	1	0
490705	CABIN HEAT CONTROL PANEL	0	1	1	1	0
490706	HEATER FUEL LINE	0	10	5	4	0
490800	BLEED AIR HEAT/DEFOG SUBSYSTEM					
490801	CONTROL PANEL	2	1	0	0	1
490802	SOLENOID VALVE	1	1	0	0	1
490803	HEATER DUCT	25	25	0	0	24
490900	ELECTRIC CHIP DETECTOR SUBSYS					
490901	CHIP DETECTOR RELAY PANEL	1	0	1	1	0
490902	CHIP DETECTOR	4	4	7	3	4
491000	VISUAL AURAL DEBARK SUBSYSTEM					
491001	CONTROL PANEL	0	0	1	0	0
491002	WARNING HORN	0	0	1	0	0
491003	FLASHER UNIT	0	0	1	0	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
510000	INSTRUMENTS SYSTEM					
510100	FLIGHT INDICATORS SUBSYSTEM					
510101	AIRSPEED	2	2	2	2	1
510102	VERTICAL CLIMB	2	2	2	2	0
510103	BAROMETRIC ALTIMETER	2	2	2	2	1
510104	RATE OF CLIMB	2	2	2	2	0
510105	DIRECTIONAL GYRO	2	2	2	2	1
510106	TURN/SLIP	2	2	2	2	1
510107	ATTITUDE INDICATOR	2	2	2	2	1
510108	FLT DIRECTOR HOVER INDICATOR	0	0	0	3	0
510109	CRUISE GUIDE INDICATOR	1	1	1	0	0
510200	MISC FLIGHT INSTRUMENTS SUBSYS					
510201	AC VOLTMETER	2	1	1	2	0
510202	DC VOLTMETER	2	1	1	2	0
510203	DC LOADMETER	2	2	1	2	1
510204	CLOCK	2	1	2	1	1
510205	OUTSIDE AIR TEMPERATURE	1	1	1	2	1
510206	MASTER CAUTION LIGHT	2	1	2	1	1
510207	MASTER FIRE WARNING LIGHT	0	1	1	2	0
510208	CAUTION LIGHT	30	16	16	33	14
510300	PITOT STATIC SUBSYSTEM					
510301	PITOT HEAD	1	1	1	2	1
510302	STATIC HEAD	1	1	1	2	1
510303	PITOT HEAT SWITCH	1	1	1	2	1
510304	LINE/HOSE	15	15	12	15	7
510305	DRAIN VALVE	1	1	4	2	1
510400	NAVIGATIONAL INDICATORS SUBSYS					
510401	MAGNETIC COMPASS	2	1	2	1	1
510500	COMPASS SUBSYSTEM					
510501	RADIO MAGNETIC INDICATOR	2	2	1	1	1
510502	COMPASS TRANSMITTER	1	1	1	1	1
510503	AMPLIFIER	1	1	1	1	1
510504	DIRECTIONAL GYRO	1	1	1	2	1
510505	CONTROLLER	0	0	0	1	0
510600	ENGINE INSTRUMENTS SUBSYSTEM					
510601	DUAL TACH INDICATOR	2	1	2	2	1
510602	TACH GENERATOR	2	2	4	4	2
510603	OIL TEMPERATURE INDICATOR	2	1	2	2	1
510604	OIL TEMPERATURE BULB	1	1	2	2	1
510605	OIL PRESSURE INDICATOR	2	1	2	2	1
510606	OIL PRESS TRANSMITTER	1	1	2	2	1
510607	FUEL PRESSURE INDICATOR	2	1	2	2	0
510608	FUEL PRESSURE TRANSMITTER	1	1	2	2	0
510609	TORQUE INDICATOR	2	1	2	2	1

CODE	NOMENCLATURE	AH-1G	UH-1H	CH-47	CH-54	OH-58
		QUANTITY PER AIRCRAFT				
510610	TORQUE SENSOR TRANSMITTER	1	1	2	0	0
510611	EXHAUST GAS TEMP INDICATOR	2	1	2	2	1
510612	EXHAUST THERMOCOUPLE ASSY	1	1	2	2	1
510700	DRIVE SYS INSTRUMENTS SUBSYS					
510701	OIL PRESSURE INDICATOR	2	1	5	1	1
510702	OIL PRESSURE TRANSMITTER	1	1	0	1	0
510703	OIL PRESSURE TRANSDUCER	0	0	5	0	0
510704	TACH INDICATOR	2	1	2	2	1
510705	TACH GENERATOR	1	1	1	1	1
510706	OIL TEMPERATURE INDICATOR	2	1	1	1	0
510707	TEMP INDICATOR SELECT SWITCH	0	0	1	0	0
510708	OIL TEMPERATURE BULB	1	1	5	1	0
510709	THERMOSWITCH	1	1	5	1	1
510800	FUEL QUANTITY SUBSYSTEM					
510801	FUEL QUANTITY INDICATOR	2	1	1	2	1
510802	SELECTOR SWITCH	0	0	1	0	0
510803	FUEL QUANTITY TRANSMITTER	2	4	6	2	1
510804	LOW LEVEL SWITCH	1	1	1	2	1
510900	HYDRAULIC INSTRUMENTS SUBSYS					
510901	BOOST PRESSURE INDICATOR	0	0	2	4	0
510902	UTILITY PRESSURE INDICATOR	0	0	1	4	0
510903	PRESSURE TRANSMITTER	2	1	3	4	0
511100	APP INSTRUMENTATION SUBSYSTEM					
511101	EGT INDICATOR	0	0	1	1	0
511102	TACHOMETER	0	0	1	1	0
511103	OIL PRESSURE INDICATOR	0	0	1	0	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT AH-1G	UH-1H	CH-47	CH-54	OH-58
910000	EMERGENCY EQUIP SYSTEM					
910100	FIRE FIGHTING EQUIP SUBSYSTEM					
910101	PORTABLE FIRE BOTTLE	2	1	3	1	1
910102	FIRE/CRASH AXE/KNIFE	2	0	1	1	0
910200	MEDICAL EQUIP SUBSYSTEM					
910201	FIRST AID KIT	2	4	7	1	1
910300	SURVIVAL EQUIP SUBSYSTEM					
910301	SURVIVAL KIT	0	1	2	1	0

APPENDIX IV

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

INSPECTION ANALYSIS MASTER CONFIGURATION FILE PAGE 1

MUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
110000 AIRFRAME SYSTEM																					
110100 FUSELAGE SUBSYSTEM																					
110101 FRAME/STRINGER	67020	67W20	68G20	67	190 30		731 10		106 8		52	3.7	6.5	23.6	N		0.0	09		6.7	2.9 6.7
110102 SKIN	67020	67W20	68G20	685	730 30		105 13		190 11		29	5.5	13.0	20.1	Y	09	1.50	09		15.0	2.2 3.5
110103 WINDSHIELD	67020	67W20	67020	92	935 37		605 19		070 6		29	3.9	5.5	80.5	Y	09	0.10	09		0.5	3.4 5.8
110104 WINDOW	67020	67W20	67020	14	070 41		190 14		106 7		15	2.4	4.4	99.9	Y	09	0.10	09		0.5	1.4 2.1
110105 ESCAPE HATCH	67020	67W20	68G20	126	070 17		190 14		106 13		101	2.0	5.8	6.8	Y	09	0.10	08 09		1.0	1.9 2.5
110106 HATCH JETTISON MECHANISM	67020	67W20	67020	10	190 50		127 25		780 25		63	0.0	0.0	0.0	N		0.0	08 09		4.0	0.9 0.9
110107 CARGO RAMP	67020	67W20	68G20	410	540 17		780 14		190 13		76	0.7	1.0	99.9	Y	09	0.30	08 09		10.0	2.4 4.5
110108 HORIZONTAL STABILIZER SECTION	67020	67W20	68G20	133	020 33		127 14		780 14		62	2.2	5.1	0.0	Y	09 10	0.20	08 09	10 11	4.0	1.8 2.6
110109 STEP/HAND HOLD	67020	67W20	68G20	7	117 100		0		0		104	0.0	0.0	0.0	N		0.0	09		0.3	0.4 0.6
110110 ANTENNA/SUPPORT	67020	35K20	35K20	45	780 22		301 18		730 15		0	0.0	0.0	0.0	Y	09	0.05	09		0.5	0.9 1.8
110200 COCKPIT/CABIN DOOR SUBSYSTEM																					
110201 SLIDING CABIN DOOR	67020	67W20	68G20	470	127 25		730 13		135 9		24	0.4	0.6	99.9	Y	08 09	0.20	08 09	10	3.0	1.2 1.7
110202 HINGED CABIN DOOR	67020	67W20	68G20	275	070 19		190 16		020 9		37	1.2	1.8	0.0	Y	08 09	0.20	08 09		2.0	1.2 1.4
110203 DOOR STRUT SET	67020	67W20	67020	20	106 33		127 33		932 33		0	0.0	0.0	0.0	N		0.0	08 09		1.0	0.4 0.4
110204 DOOR LATCH MECHANISM	67020	67W20	67020	48	127 26		070 24		106 5		21	2.0	2.6	0.0	Y	08 10	0.10	08		0.5	1.3 1.7

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
110205	67020	67W20	67020	2	190						0	0.0	0.0	0.0	N		0.0	09		4.0	1.2
DOOR JETTISON MECHANISM					100		0		0									09			1.2
110300																					
ACCESS DOOR/COWL SUBSYSTEM																					
110301	67020	67W20	68G20	70	190		070		106		53	0.2	0.5	29.3	Y	09	0.10	08	26	1.5	1.2
HINGED ACCESS DOOR/COWLING					17		16		14									09			1.4
110302	67020	67W20	68G20	27	070		190		780		55	3.4	4.8	0.0	Y	09	0.10	08		2.0	1.7
HINGED WORK PLATFORM					28		23		9									09			2.0
110303	67020	67W20	67020	6	070		190		780		24	4.2	8.3	0.0	Y	09	0.05	08		0.5	1.0
DOOR/COWL/PLTFM LATCH MECHSM					62		11		7												1.1
110304	67020	67W20	68G20	558	190		106		070		72	2.6	6.1	16.9	Y	09	0.20	08		1.0	1.6
REMOVABLE FAIRING/COWLING					34		24		16									09			2.1
110305	67020	67W20	68G20	4	020		070		106		40	7.3	16.7	0.0	Y	09	0.05	08		0.5	1.1
REMOVABLE ACCESS PANEL					30		18		12									09			1.6
110400																					
COCKPIT/CABIN INTERIOR SUBSYS																					
110401	67020	67W20	68G20	62	106		093		190		7	0.0	0.0	0.0	N		0.0	09		2.0	0.7
INSTRUMENT CONSOLE					57		10		13												0.8
110402	67020	67W20	68G20	2	106						5	0.0	0.0	0.0	Y	09	0.40	09		2.0	0.2
EQUIPMENT RACK					100		0		0							10					0.2
110403	67020	67W20	68G20	10	540		106		760		73	1.0	2.7	64.9	Y	09	0.10	09		1.5	2.7
FLOOR PANEL					19		5		4												5.9
110404	67020	67W20	68G20	7	070		135		190		0	0.0	0.0	0.0	N		0.0	09		1.0	0.6
SEAT TRACK					50		25		25												1.0
110500																					
ENG COMPARTMENT/TUNNEL SUBSYS																					
110501	67020	67W20	68G20	49	190		020		106		37	0.0	0.0	0.0	N		0.0	09		2.0	2.1
FIREWALL					52		20		7												3.1
110502	67020	67W20	68G20	3	190		070		760		76	0.0	0.0	0.0	N		0.0	09		0.3	0.5
SCUPPER/DRAIN					52		9		9												1.0
110503	67020	67W20	68G20	8	127		135		437		77	0.0	0.0	0.0	N		0.0	09		1.0	1.5
HANGER BRG SUPPT STRUCTURE					33		22		22												1.5
110600																					
FITTING/HARDPOINT SUBSYSTEM																					

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
110601 ENGINE FITTING	67020	67W20	68G20	4	190 35		105 24		020 22		22	0.0	0.0	0.0	Y	09	0.10	09		0.5	2.5 5.0
110602 TRANSMISSION/GEARBOX FITTING	67020	67W20	68G20	29	190 50		020 25		070 10		94	0.0	0.0	0.0	N		0.0	09		1.0	1.4 2.1
110603 TAIL BOOM ATTACH FITTING	67020	67W20	68G20	15	106 22		105 17		167 17		15	6.3	7.8	0.0	N		0.0	09 12		3.0	1.3 2.1
110604 LANDING GEAR FITTING	67020	67W20	68G20	2	020 33		730 33		170 17		84	0.0	0.0	0.0	N		0.0	09		0.5	2.0 2.4
110605 CARGO HOOK FITTING	67020	67W20	68G20	2	020 100		0		0		25	0.0	0.0	0.0	N		0.0	09		0.5	2.0 4.0
110606 ARMAMENT FITTING	67020	67W20	68G20	2	070 100		0		0		0	0.0	0.0	0.0	Y	09	0.10	09 11		0.5	0.8 0.8
120000 FUSELAGE COMPARTMENT SYSTEM																					
120100 COCKPIT SUBSYSTEM																					
120101 INSTRUMENT PANEL	67020	67W20	68G20	62	106 57		093 10		190 10		7	0.0	0.0	0.0	N		0.0	09		2.0	0.7 0.8
120102 GLARE SHIELD	67020	67W20	67020	34	190 60		070 20		246 10		16	22.2	33.3	99.9	N		0.0	09		1.0	0.8 0.8
120103 OVERHEAD PANEL	67020	67W20	58G20	13	780 50		105 25		381 25		0	0.0	0.0	0.0	N		0.0	09		2.0	0.5 0.5
120104 PILOT/COPILOT SEAT/CUSHION	67020	67W20	67020	132	730 20		106 17		124 14		12	4.2	5.3	0.0	N		0.0	09		2.0	0.9 1.1
120105 SEAT ADJUSTMENT MECHANISM	67020	67W20	67020	6	135 33		410 33		760 33		107	0.0	0.0	0.0	N		0.0	08 09	10	4.0	0.6 0.6
120106 INERTIA REEL	67020	67W20	67020	16	932 33		105 25		135 17		0	10.1	11.3	0.0	Y	08	0.20	08 09		3.0	0.4 0.4
120107 SHOULDER HARNESS/LAP BELT	67020	67W20	67020	17	932 24		127 19		070 14		0	0.0	0.0	0.0	Y	09	0.20	09		1.0	0.5 0.6
120108 ARMOR PLATE SET	67020	67W20	67020	2	070 100		0		0		0	0.0	0.0	0.0	Y	09 10	0.10	09		0.8	1.5 1.5
120109 ARMR PLT QUICK RELEASE MECHNSM	67020	67W20	67020	6	135 33		410 33		760 33		107	0.0	0.0	0.0	Y	09	0.10	08 09		3.0	0.6 0.6

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

MUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
120110 67020 67W20 67020 RELIEF TUBE	4	070 33		127 17		262 17		0	0.0	0.0	0.0	N		0.0	09		3.0	0.5 0.6
120111 67020 67W20 68G20 MAP CASE	61	730 57		105 10		106 10		5	0.0	0.0	0.0	N		0.0	09		1.0	0.7 0.7
120112 67020 67W20 67020 SPARE LAMP STORAGE BOX	61	730 57		105 10		106 10		5	0.0	0.0	0.0	N		0.0	09		1.5	0.7 0.7
120200 CABIN SUBSYSTEM																		
120201 67020 67W20 67020 PASSENGER SEAT	6	947 63		127 21		730 4		44	0.0	0.0	0.0	N		0.0	09 10		1.5	1.3 2.0
120202 67020 67W20 67020 LAP BELT	5	020 100		0		0		160	0.0	0.0	0.0	Y	09	0.10	09		0.5	0.5 0.6
120203 67020 67W20 67020 INSULATION BLANKET PANEL	1	020 25		301 13		730 13		15	0.0	0.0	0.0	N		0.0	09		2.0	1.0 1.0
120204 67020 67W20 67020 BLOCK & TACKLE ASSY	4	070 33		540 33		0		89	0.0	0.0	0.0	N		0.0	09		5.0	1.5 1.8
120300 RAMP ACTUATE/CONTROL SUBSYS																		
120301 67020 67W20 68H20 RAMP CONTROL PANEL	9	070 63		127 13		730 13		0	0.0	0.0	0.0	Y	08	0.10	08 09		2.0	0.7 0.7
120302 67020 67W20 68H20 RAMP ACTUATE CYLINDER & LOCK	89	381 86		780 8		020 2		40	10.2	18.7	75.4	Y	08	0.40	08 09		3.0	1.4 1.7
120400 HATCH DOOR ACTUATION SUBSYS																		
120401 67020 67W20 67020 HATCH DOOR ACTUATING CYLINDER	21	381 33		020 17		246 17		30	0.0	0.0	0.0	N		0.0	09		1.0	0.9 1.3
120402 67020 67W20 67020 HATCH DOOR LATCH	21	381 33		020 17		246 17		30	0.0	0.0	0.0	N		0.0	08		2.0	0.9 1.3
130000 LANDING GEAR SYSTEM																		
130100 MLG SKID TYPE SUBSYSTEM																		
130101 67020 67W20 67020 SKID TUBE	210	020 25		730 14		106 12		35	4.8	7.9	76.9	Y	09	0.10	09 10		2.0	2.7 6.1

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP EMT/ HRS
130102 SKID TUBE SHOE	67020	67W20	67020	42	020 40		106 20		730 16		39	0.0	0.0	0.0	Y	09	0.10	09		1.0	1.6 3.4
130103 CROSS TUBE	67020	67W20	67020	70	780 20		020 18		106 16		10	2.5	4.3	0.0	Y	09	0.10	09 10	11	3.0	3.3 7.4
130104 CROSS TUBE SUPPORT	67020	67W20	67020	21	106 63		020 19		730 13		63	0.0	0.0	0.0	Y	09	0.10	09 10		1.5	0.8 0.8
130105 STRUT FAIRING	67020	67W20	68G20	84	190 48		780 14		070 11		51	12.6	21.5	50.0	Y	09	0.10	09		1.0	1.1 1.3
130200 MLG OLEO TYPE SUBSYSTEM																					
130201 SHOCK STRUT	67020	67W20	68H20	131	381 26		525 21		374 7		23	6.1	11.6	29.7	Y	09	0.10	09 11		2.0	1.5 2.7
130202 DRAG STRUT	67020	67W20	67020	75	381 72		020 4		230 4		43	4.6	9.7	0.0	Y	09	0.10	09 10		0.9	2.4 5.2
130203 SCISSORS ASSEMBLY	67020	67W20	67020	1	105 100		0		0		160	0.0	0.0	0.0	Y	09	0.10	09		1.5	1.3 1.3
130204 SHIMMY DAMPER ASSEMBLY	67020	67W20	67020	41	730 55		660 18		070 9		44	12.1	19.7	99.9	Y	09	0.10	09 25		6.0	0.6 0.8
130205 WHEEL LOCK	67020	67W20	67020	51	070 58		135 11		585 9		22	1.9	3.5	0.0	Y	09	0.10	08 09		2.0	0.8 0.9
130207 WHEEL & TIRE ASSEMBLY	67020	67W20	67020	329	020 23		782 12		230 17		210	1.7	3.3	35.9	Y	09	0.10	08 09	12 16	2.0	0.9 1.2
130300 MLG BRAKE SUBSYSTEM																					
130301 POWER BRAKE MASTER CYLINDER	67020	67W20	68H20	187	651 48		381 24		525 10		13	1.1	1.6	99.9	Y	04 09	0.10	08 09		1.5	0.8 1.1
130302 BRAKE ASSEMBLY	67020	67W20	68H20	296	381 64		020 13		651 10		31	2.2	4.4	50.0	Y	04 09	0.10	08 09	10 11	2.0	1.2 1.8
130303 PARKING BRAKE CONTROL	67020	67W20	67020	293	070 45		135 12		127 5		12	0.7	1.0	99.9	Y	04	0.10	08 09		1.3	0.9 1.2
130304 PARKING BRAKE CABLE	67020	67W20	67020	90	020 41		410 21		127 8		19	6.9	11.7	9.0	N		0.0	08 09		4.0	1.2 1.7
130305 PARKING BRAKE LINKAGE/SPRING	67020	67W20	67020	5	070 54		106 25		127 11		45	0.0	0.0	0.0	N		0.0	08 09		0.9	1.0 1.0

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC MDS 1 MDS 2 MDS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP EMT/ HRS
130306 67020 67W20 68H20 PARKING BRAKE VALVE	2	020 100		0		0		0	0.0	0.0	0.0	N		0.0	08 09		0.8	1.5 1.5
130400 POWER STEERING SUBSYSTEM																		
130401 67020 67W20 68F20 RHEOSTAT	26	374 29		450 29		242 14		0	0.0	0.0	0.0	Y	04	0.20	08		1.3	0.9 1.6
130402 67020 67W20 68F20 ELECTRICAL HARNESS	26	127 29		374 29		070 14		20	0.0	0.0	0.0	N		0.0	08 09		1.5	0.9 1.7
130403 67020 67W20 68H20 POWER STEERING HYD UNIT	89	381 86		780 8		020 2		40	10.2	18.7	50.0	Y	04 09	0.10	08 09		1.5	1.4 1.7
130500 TAIL SKID SUBSYSTEM																		
130501 67020 57W20 67020 TAIL SKID SHOCK STRUT	45	020 33		070 25		780 25		67	0.0	0.0	0.0	Y	09	0.10	09		1.8	1.0 1.3
130502 67020 67W20 67020 TAIL SKID TUBE	79	730 25		190 21		106 17		29	10.4	15.2	0.0	Y	09 10	0.10	09		2.0	1.4 1.8
130503 67020 67W20 67020 TAIL SKID ACTUATOR	399	374 34		780 17		450 8		12	1.1	1.6	0.0	N		0.0	09		1.5	0.9 1.5
140000 FLIGHT CONTROLS SYSTEM																		
140100 COLLECTIVE PITCH CNTLS SUBSYS																		
140101 67020 67W20 67020 COLLECTIVE STICK ASSEMBLY	345	020 42		127 27		730 7		62	3.9	8.3	43.9	Y	08 09	0.20	08 09		5.0	1.5 2.0
140102 67020 67W20 67020 FRICTION BRAKE	214	127 64		135 29		240 5		3	2.5	2.5	0.0	Y	08	0.20	08		2.0	1.6 3.1
140103 67020 67W20 67020 TORQUE TUBE	4	127 100		0		0		0	4.2	6.5	0.0	Y	09 10	0.20	09 10	11	5.0	3.0 8.5
140104 67020 67W20 67020 PUSH-PULL ROD	26	020 47		127 26		170 8		73	5.1	7.3	33.0	Y	09 10	0.10	09 10	11	1.5	1.2 1.7
140105 67020 67W20 67020 CRANK/LEVER/ARM, ETC	35	020 57		127 18		585 9		22	11.4	22.7	32.9	Y	09 10	0.10	09 10	11	2.0	1.8 2.3
140106 67020 67W20 68F20 MAGNETIC BRAKE	119	135 42		901 12		450 11		6	0.0	0.0	0.0	N		0.0	09		0.8	1.9 3.7

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
140107 67020 67W20 67020 DAMPER ASSEMBLY	39	242 23		135 19		020 12		37	2.0	2.4	0.0	N		0.0	09		1.0	1.1 1.2
140108 67020 67W20 68F20 ENGINE DROOP ELIMINATOR UNIT	2	135 100		0		0		0	0.0	0.0	0.0	N		0.0	09		1.5	2.5 5.0
140109 67020 67W20 67020 BOOT/SEAL	28	947 36		020 28		127 12		39	0.0	0.0	0.0	N		0.0	09		0.5	1.1 1.4
140200 CYCLIC CONTROLS SUBSYSTEM																		
140201 67020 67W20 67020 CYCLIC CONTROL STICK	123	127 28		070 13		135 9		7	4.3	4.3	50.0	Y	08 09	0.20	08 09		5.0	1.3 1.7
140202 67020 67W20 68F20 STICK TRIM ACTUATOR	1201	374 28		127 12		242 12		8	6.9	9.7	32.7	N		0.0	09		1.0	1.4 2.0
140203 67020 67W20 68F20 LONGITUDINAL STICK POS INDCATR	32	070 28		127 28		135 17		20	6.3	6.3	0.0	Y	09	0.10	09		0.5	1.2 1.8
140204 67020 67W20 67020 TORQUE TUBE	80	127 33		020 20		117 8		46	6.2	7.6	0.0	Y	09 10	0.20	09 10	11	5.0	1.7 2.2
140205 67020 67W20 67020 PUSH-PULL ROD	7	127 35		020 20		170 20		42	7.1	8.3	33.0	Y	09 10	0.10	09 10	11	1.5	1.2 1.6
140206 67020 67W20 67020 CRANK/LEVER/ARM, ETC	95	020 59		710 24		720 6		44	5.5	7.5	24.9	Y	09 10	0.10	09 10	11	2.0	1.8 2.3
140207 67020 67W20 68F20 MAGNETIC BRAKE	110	135 45		901 13		450 11		4	0.0	0.0	0.0	N		0.0	09		0.8	2.0 3.8
140208 67020 67W20 67020 FORCE GRADIENT ASSEMBLY	44	127 14		135 15		020 7		15	4.2	4.4	0.0	N		0.0	09		1.5	1.9 2.5
140209 67020 67W20 68F20 LONGTUNL CYCLIC TRIM SPD ACTR	345	381 36		135 23		127 9		18	7.2	9.0	0.0	N		0.0	09		1.0	2.0 3.2
140210 67020 67W20 67020 BOOT/SEAL	1	020 100		0		0		138	0.0	0.0	0.0	N		0.0	09		0.5	0.5 0.5
140300 CONTROLS MIXER SUBSYSTEM																		
140301 67020 67W20 67020 CONTROLS MIXER ASSEMBLY	45	020 47		105 16		730 10		132	7.8	11.7	0.0	Y	09 10	0.60	09 10	11 12	20.0	1.9 2.3
140400 MAST CONTROLS SUBSYSTEM																		

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	RSP ENT/ HRS
140401 67020 67W20 67020 SWASHPLATE ASSEMBLY	420	020 32		127 30		730 14		21	11.6	14.6	41.5	Y	09 10	0.60	08 09	10 11	40.0	2.8 5.0
140403 67020 67W20 67020 SCISSOR & SLEEVE ASSEMBLY	774	020 64		710 9		730 7		62	5.4	9.8	25.1	Y	09 10	0.40	09 10	11 12	15.0	1.8 2.6
140404 67020 67W20 67020 LINK/ROD/LEVER, ETC	219	020 63		730 13		710 10		45	0.0	0.0	0.0	Y	09 10	0.10	09 10	11 12	1.5	2.1 3.3
140405 67020 67W20 67020 SWASHPLATE BOOT/SEAL	5	105 100		0		0		0	0.0	0.0	0.0	N		0.0	09		0.5	1.3 1.3
140406 67020 67W20 67020 SWASHPLATE ASSY (HEAVY HELO)	162	020 49		710 18		730 14		86	5.7	12.4	20.3	Y	09 10	0.90	08 09	10 11	50.0	2.8 7.5
140500 TAIL ROTOR CONTROLS SUBSYSTEM																		
140501 67020 67W20 67020 PEDAL ASSEMBLY	24	135 26		127 20		070 13		0	10.3	11.1	0.0	Y	08 09	0.10	08 09		1.0	1.1 1.3
140502 67020 67W20 67020 PEDAL ADJUSTMENT MECHANISM	23	127 35		135 21		070 14		10	7.7	10.0	0.0	N		0.0	09		1.5	1.6 1.8
140503 67020 67W20 68F20 TAIL ROTOR TRIM ACTUATOR	4	374 50		135 25		900 25		0	0.0	0.0	0.0	N		0.0	09		1.0	1.3 2.5
140504 67020 67W20 67020 PUSH-PULL ROD	2	381 40		020 20		127 20		28	5.5	7.0	33.0	Y	09 10	0.10	09 10	11	1.5	1.7 2.6
140505 67020 67W20 67020 CRANK/LEVER/ARM, ETC	21	020 41		127 26		710 9		57	2.5	3.8	20.0	Y	09 10	0.10	09 10	11	2.0	1.4 1.9
140506 67020 67W20 68F20 MAGNETIC BRAKE	45	135 28		381 14		651 14		10	7.7	7.7	33.0	N		0.0	09		0.8	1.6 2.7
140507 67020 67W20 67020 FORCE GRADIENT ASSEMBLY	13	020 50		127 25		135 25		69	0.0	0.0	0.0	N		0.0	09		1.5	2.8 4.0
140508 67020 67W20 67020 PULLEY	8	020 50		070 21		190 14		99	0.0	0.0	0.0	Y	09	0.10	09 26		1.0	1.0 1.1
140509 67020 67W20 67020 QUADRANT	13	070 50		170 25		710 25		138	0.0	0.0	0.0	Y	09	0.10	09 10	11	2.0	0.8 0.9
140510 67020 67W20 67020 CABLE ASSEMBLY/TURNBUCKLE	48	020 50		127 11		230 9		42	5.1	6.6	0.0	Y	09	0.15	09 13	26	7.0	1.1 1.6
140511 67020 67W20 67020 FAIRLEAD	8	020 50		127 25		780 13		99	0.0	0.0	0.0	N		0.0	09 26		0.5	1.0 1.1

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

NUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
140512 CHAIN ASSEMBLY	67020	67W20	67020	95	020 68		135 11		246 7		75	15.0	55.2	0.0	Y	09	0.10	09 11	26	5.0	1.3 1.7
140600 TAIL ROTOR PITCH CNTRL SUBSYS																					
140601 CROSS HEAD/STAR	67020	67W20	68E20	299	020 73		730 7		710 6		64	8.0	13.0	0.0	Y	09 10	0.50	08 09	10 11	4.0	1.4 1.5
140602 PITCH CHANGE LINK	67020	67W20	68E20	172	127 50		020 34		170 5		30	3.8	4.6	33.4	Y	09 10	0.10	08 09	10 11	1.5	1.1 1.2
140700 ELEVATOR CONTROLS SUBSYSTEM																					
140701 PUSH-PULL ROD	67020	67W20	67020	3	381 40		020 20		127 20		28	0.0	0.0	0.0	Y	09 10	0.10	09 10	11	1.5	1.7 2.6
140702 CRANK/LEVER/ARM, ETC	67020	67W20	67020	1	020 50		070 50		0		69	0.0	0.0	0.0	Y	09 10	0.10	09 10	11	1.5	1.6 3.6
140703 TORQUE TUBE	67020	67W20	67020	26	020 38		127 25		190 13		52	39.4	48.7	0.0	Y	09 10	0.20	09 10	11	5.0	3.3 4.8
140800 STABILITY AUGMENTATION SUBSYS																					
140801 SAS GYRO	67020	35K20	35K20	139	374 45		242 8		450 8		0	2.6	3.0	0.0	N		0.0	04 09		1.0	1.1 2.0
140802 SAS TRANSDUCER	67020	35K20	35K20	8	780 40		070 20		437 20		0	20.0	20.0	0.0	N		0.0	04		0.8	1.2 1.2
140803 SAS CONTROL ACTUATOR	67020	35K20	35K20	229	127 47		135 13		242 11		9	7.0	8.8	43.6	N		0.0	04 09		3.0	2.5 4.8
150000 ROTOR SYSTEM																					
150100 MAIN ROTOR SUBSYSTEM																					
150101 M.R. BLADE ASSEMBLY	67020	67W20	68E20	189	190 30		780 19		731 8		13	13.5	22.9	58.0	Y	02 09	2.00	09 11	24	8.0	2.2 5.1
150102 DRAG BRACE	67020	67W20	68E20	17	020 20		127 20		135 20		58	32.0	89.0	0.0	Y	09	0.10	09		0.9	0.9 1.3
150103 DAMPER ASSEMBLY	67020	67W20	68E20	114	127 16		190 12		381 11		16	6.1	14.5	2.3	Y	09	0.10	09		1.5	1.8 3.1

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

NUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
150104 DAMPER RESERVOIR	67020	67W20	68E20	15	381 100		0		0		20	0.0	0.0	0.0	Y	09	0.20	09		2.0	0.8 1.3
150105 DAMPER HOSE	67020	67W20	68E20	1	381 100		0		0		35	0.0	0.0	0.0	Y	09	0.05	09		0.3	1.0 2.0
150106 PITCH VARYING HOUSING/ASSY	67020	67W20	68E20	36	020 32		730 14		410 9		44	2.2	3.1	15.0	Y	08 09	0.20	09 11		4.0	1.6 2.5
150107 TENSION-TORSION STRAP SET	67020	67W20	68E20	2	246 100		0		0		0	0.0	0.0	0.0	N		0.0			0.0	1.8 2.9
150108 HUB ASSEMBLY	67020	67W20	68E20	491	020 24		127 13		190 9		[illegible]	3.5	5.3	35.0	Y	09	0.20	09		4.0	2.9 6.4
150109 HUB OIL RESERVOIR	67020	67W20	68E20	7	381 55		410 18		660 18		29	0.0	0.0	0.0	Y	09	0.10	09		0.5	1.3 2.0
150111 CENTRIFUGAL DROOP STOP ASSY	67020	67W20	68E20	26	020 22		070 17		190 14		39	4.9	13.2	0.0	Y	08 09	0.10	09 11		4.0	1.6 2.3
150112 ANTI-FLAP RESTRAINER	67020	67W20	68E20	6	135 33		230 17		410 17		0	11.1	20.0	0.0	Y	08 09	0.10	08 09		1.0	0.7 0.7
150113 PITCH HORN	67020	67W20	68E20	5	020 67		106 33		0		92	0.0	0.0	0.0	Y	09	0.10	09		1.0	0.9 0.9
150114 PITCH LINK	67020	67W20	68E20	495	127 41		020 39		710 9		33	2.7	3.6	19.1	Y	09 10	0.10	09 10	11	1.5	1.1 1.4
150115 K BAR	67020	67W20	68E20	52	710 50		105 30		135 5		75	0.0	0.0	0.0	Y	09	0.10	09 10	11	1.0	3.0 4.2
150116 CONTROL TUBE/ROD	67020	67W20	67020	31	020 39		106 25		127 14		54	5.5	14.9	0.0	Y	09 10	0.10	09 10	11	1.5	1.1 1.4
150117 STABILIZER BAR ASSEMBLY	67020	67W20	68E20	740	020 41		710 9		190 7		39	6.5	12.3	32.7	Y	09 10	0.20	09		6.0	1.3 1.7
150118 STABILIZER DAMPER	67020	67W20	68E20	437	020 53		127 15		381 6		89	0.0	0.0	0.0	Y	09	0.10	09 12	27	6.0	1.2 1.5
150119 ROTARY WING HEAD FAIRING	67020	67W20	68G20	45	730 50		105 17		381 17		54	0.0	0.0	0.0	Y	09	0.10	09 10		1.0	1.8 2.6
150120 SAND DEFLECTOR	67020	67W20	68G20	45	730 50		106 17		381 17		54	0.0	0.0	0.0	Y	09	0.10	09		1.0	0.9 1.3
150121 BOOT/COVER	67020	67W20	67020	27	947 63		020 11		106 9		132	2.9	18.0	0.0	N		0.0	09		0.5	1.3 1.7

WUC MDS 1 MDS 2 MDS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP EMT/ HRS
150122 67020 67W20 68E20 PITCH VARY HSG/ASSY (HVY HELO)	531	020 25		381 10		374 10		85	4.6	10.6	31.2	Y	08 09	0.30	09 11		5.0	1.7 3.3
150123 67020 67W20 68E20 HUB ASSEMBLY (HEAVY HELO)	291	381 32		127 19		070 7		28	9.2	16.3	37.4	Y	09	0.40	09		8.0	3.0 9.0
150200 TAIL ROTOR SUBSYSTEM																		
150201 67020 67W20 68E20 T.R. BLADE ASSEMBLY	272	780 38		731 19		425 17		16	12.3	19.2	11.9	Y	09	0.50	09 11	24	4.0	1.1 1.2
150202 67020 67W20 68E20 SLEEVE & SPINDLE ASSEMBLY	175	381 39		386 20		410 11		13	1.9	6.7	64.8	Y	08 09	0.20	09		2.5	1.7 3.9
150203 67020 67W20 68E20 HUB ASSEMBLY	761	710 56		020 7		190 7		34	5.3	7.0	24.4	Y	09	0.10	09 12		3.0	1.4 1.6
150204 67020 67W20 68E20 OIL RESERVOIR	15	381 100		0		0		20	0.0	0.0	0.0	Y	09	0.10	09		0.5	0.8 1.3
220000 TURBOSHAFT ENGINE SYSTEM																		
220100 ENGINE ASSEMBLY SUBSYSTEM																		
220101 67020 67W20 68B20 ENGINE ASSEMBLY	346	381 8		127 4		301 2		9	13.0	16.6	30.5	Y	09	2.00	04 06	09 10	212.0	2.3 5.3
220200 ENG REPLACBLE COMPNENTS SUBSYS																		
220201 67020 67W20 68B20 COMBUSTION CASE FUEL DRAIN VLV	5	437 100		0		0		142	0.0	0.0	0.0	N		0.0	09		3.0	0.5 1.0
220202 67020 67W20 67020 EXHAUST EJECTOR	13	190 50		730 50		0		0	0.0	0.0	0.0	N		0.0	09		2.0	3.3 5.4
220203 67020 67W20 67020 INSULATION BLANKET	1	070 100		0		0		0	0.0	0.0	0.0	N		0.0	09		1.5	0.5 0.5
220204 67020 67W20 67020 FIRESHIELD	43	190 37		106 24		947 9		70	3.3	8.9	0.0	N		0.0	09		1.0	2.1 2.9
220300 ENGINE FUEL SUBSYSTEM																		
220301 67020 67W20 68B20 FUEL CONTROL ASSEMBLY	177	127 54		242 10		230 6		2	3.7	4.0	50.0	N		0.0	04 09	11	10.0	1.7 2.1

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
220302	67020	67W20	67020	10	230		070				46	0.0	0.0	0.0	N		0.0	09		10.0	1.0
FUEL CONTROL STRAINER					67		33		0									12			1.0
220303	67020	67[illegible]	67020	11	230		306		381		59	0.0	0.0	0.0	N		0.0	04		10.0	0.7
SERVO FILTER					33		17		17									09			0.8
220305	67020	67W20	68B20	152	381		127		315		3	8.6	13.5	36.1	N		0.0	09		2.0	1.1
OVERSPEED GOVERNOR					41		12		8												1.3
220306	67020	67W20	68B20	10	230		190				92	0.0	0.0	0.0	N		0.0	04	12	1.0	1.0
FUEL BOOST PUMP					67		33		0									09			1.0
220307	67020	67W20	67020	11	230		306		381		59	0.0	0.0	0.0	Y	01	0.10	04	12	10.0	0.7
FUEL FILTER					33		17		17							09		09			0.8
220308	67020	67W20	68B20	35	230		730		037		10	0.0	0.0	0.0	N		0.0	09		2.0	1.4
FUEL HEATER					18		18		9												3.5
220309	67020	67W20	68B20	72	780		381		317		64	29.4	40.7	26.8	Y	09	0.10	09		1.5	2.2
FLOW DIVIDER ASSEMBLY					33		18		9												3.7
220310	67020	67W20	68B20	55	381		127		730		8	25.1	33.4	50.0	Y	09	0.10	04		2.0	3.0
MAIN & STARTING FUEL MANIFOLD					59		12		14									09			6.0
220311	67020	67W20	68B20	19	381		020		730		31	21.2	43.1	0.0	Y	09	0.05	04		0.3	1.2
LINE/HOSE					45		15		12									09			1.2
220400																					
ENGINE LUBRICATION SUBSYSTEM																					
220401	67020	67W20	68B20	72	381		106		730		31	5.7	14.0	0.0	Y	09	0.20	09		3.0	1.2
OIL TANK					50		9		9												1.4
220402	67020	67W20	67020	10	230		070				46	0.0	0.0	0.0	N		0.0	09		10.0	1.0
OIL STRAINER					67		33		0									12			1.0
220403	67020	67W20	67020	13	730		190		381		35	0.0	0.0	0.0	Y	01	0.10	09		10.0	0.6
OIL FILTER					50		25		25							09		12			0.7
220404	67020	67W20	68B20	7	190		070		381		39	0.0	0.0	0.0	Y	09	0.10	08		1.5	1.7
LIQ-TO-LIQ OIL COOLER					50		25		13									09			2.2
220405	67020	67W20	68B20	7	381		730		111		35	9.3	13.9	0.0	Y	09	0.05	04		0.3	0.7
LINE/HOSE					46		19		9									09			0.9
220500																					
ENGINE ELECTRICAL SUBSYSTEM																					
220501	67020	67W20	68F20	48	070		374		135		0	0.0	0.0	0.0	N		0.0	08		1.0	1.2
TEST SWITCH					40		13		7												1.3

WUC MDS 1 MDS 2 MDS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
220502 67020 67W20 68B20 ELECTRICAL HARNESS ASSEMBLY	16	070 20		190 20		450 20		15	0.0	0.0	0.0	N		0.0	08 09		1.5	1.5 1.7
220503 67020 67W20 68B20 FIRE DETECTOR ELEMENT	114	070 34		020 14		615 11		12	9.4	12.1	0.0	N		0.0	09 23		5.0	1.3 2.1
220600 ENGINE IGNITION SUBSYSTEM																		
220601 67020 67W20 68B20 IGNITION EXCITER	52	374 44		070 13		958 13		0	31.3	41.8	0.0	N		0.0	08 09		1.0	1.7 3.0
220602 67020 67W20 68B20 IGNITION HARNESS	6	020 50		070 50		 0		0	0.0	0.0	0.0	N		0.0	08 09		2.0	1.5 1.7
220603 67020 67W20 68B20 IGNITER PLUG	15	242 28		900 22		020 11		38	14.9	24.6	0.0	N		0.0	05		4.0	1.7 3.0
220700 BLEED AIR SUBSYSTEM																		
220701 67020 67W20 68B20 ANTI-ICING PROBE	6	374 100		 0		 0		0	0.0	0.0	0.0	N		0.0	09		2.0	1.6 2.1
220702 67020 67W20 68B20 AIRBLEED ACTUATOR/STRAINER	10	127 100		 0		 0		0	0.0	0.0	0.0	N		0.0	09 12		10.0	1.2 1.5
220703 67020 67W20 68B20 AIR VALVE ASSEMBLY	35	230 18		730 18		037 9		0	0.0	0.0	0.0	N		0.0	09		0.8	1.4 3.5
220704 67020 67W20 68B20 LINE/HOSE	12	660 26		020 14		242 10		22	0.0	0.0	0.0	N		0.0	09		0.3	1.1 1.6
240000 AUXILIARY POWER PLANT SYSTEM																		
240100 APP ENGINE ASSEMBLY SUBSYSTEM																		
240101 67020 67W20 68B20 APP ENGINE ASSEMBLY	26	464 20		190 20		374 10		74	0.0	0.0	0.0	Y	09	0.30	09 11	12	53.0	3.4 4.9
240200 APP REPLACEABLE COMPNT SUBSYS																		
240201 67020 67W20 68B20 AIR INLET SCREEN	7	070 50		947 50		 0		89	0.0	0.0	0.0	Y	09	0.10	09 12		1.5	0.9 0.9
240202 67020 67W20 68G20 AIR INLET DUCT	14	020 25		011 25		070 13		44	0.0	0.0	0.0	Y	09	0.10	09 12		1.5	0.9 0.9

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
240204 INSULATION BLANKET	67020	67W20	67020	1	070 100		0		0		0	0.0	0.0	0.0	N		0.0	09		1.5	0.5 0.5
240300 APP FUEL SUBSYSTEM																					
240301 FUEL CONTROL ASSEMBLY	67020	67W20	68B20	116	127 39		177 13		242 10		14	0.0	0.0	0.0	N		0.0	09		4.0	1.5 2.7
240302 ACCELLERATION CONTROL ASSY	67020	67W20	68B20	77	127 43		242 16		317 9		8	7.2	20.0	33.9	N		0.0	09		2.0	2.4 4.0
240303 RATED SPEED CONTROL ASSY	67020	67W20	68B20	15	374 75		450 25		0		80	0.0	0.0	0.0	N		0.0	09		2.0	0.8 1.1
240304 FUEL BOOST PUMP	67020	67W20	68B20	76	242 36		374 17		177 10		55	16.2	37.7	40.4	N		0.0	09		1.0	1.6 2.3
240305 FUEL FILTER	67020	67W20	67020	7	230 75		242 25		0		89	50.0	50.0	0.0	Y	01 09	0.10	09 12		10.0	1.7 2.0
240306 PRESSURE SWITCH	67020	67W20	68B20	11	070 33		106 33		108 33		16	0.0	0.0	0.0	N		0.0	09		0.8	0.5 0.5
240307 FUEL SHUTOFF VALVE	67020	67W20	68B20	14	070 25		177 25		242 25		44	32.2	65.7	50.0	N		0.0	09		0.8	1.5 2.0
240308 LINE/HOSE	67020	67W20	68B20	3	381 60		177 20		190 20		35	40.0	99.9	50.0	Y	09	0.05	09		0.3	0.9 1.4
240400 APP LUBRICATION SUBSYSTEM																					
240401 OIL RESERVOIR	67020	67W20	68B20	2	381 100		0		0		20	50.0	99.9	0.0	Y	09	0.20	09		3.0	1.5 2.1
240402 OIL FILTER	67020	67W20	67020	13	730 50		190 25		381 25		35	0.0	0.0	0.0	Y	01 09	0.10	09 12		10.0	0.6 0.7
240403 OIL RELIEF VALVE	67020	67W20	68B20	20	108 33		190 33		561 33		0	33.3	33.3	66.0	N		0.0	08		0.5	0.7 0.7
240404 LINE/HOSE	67020	67W20	68B20	3	381 60		177 20		190 20		35	40.0	99.9	50.0	Y	09	0.05	09		0.3	0.9 1.4
240500 APP CONTROL SUBSYSTEM																					
240501 START SWITCH	67020	67W20	68F20	12	117 43		106 14		100 14		25	0.0	0.0	0.0	N		0.0	09		1.3	0.9 1.1

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
240502 RELAY	67020	67W20	68F20	5	374 33		567 33		901 33		0	0.0	0.0	0.0	N		0.0	09		0.8	1.0 1.4
240503 SPEED CONTROL SWITCH	67020	67W20	68B20	48	374 23		127 15		450 15		0	0.0	0.0	0.0	N		0.0	09		0.8	2.1 2.6
240600 APP IGNITION SUBSYSTEM																					
240601 IGNITION UNIT	67020	67W20	68B20	15	255 18		020 9		070 9		0	10.0	50.0	0.0	N		0.0	09		1.0	1.9 2.5
240602 EXCITER	67020	67W20	68B20	14	374 38		255 25		169 13		0	15.8	99.1	0.0	N		0.0	09		1.0	1.5 2.5
240603 IGNITION HARNESS	67020	67W20	68B20	4	070 50		080 50		0		0	0.0	0.0	0.0	N		0.0	09 12		3.0	0.8 0.8
240604 IGNITER PLUG	67020	67W20	68B20	37	242 24		615 14		900 14		9	20.0	39.9	0.0	N		0.0	09 12		3.0	1.3 2.4
240700 APP HYDRAULIC SUBSYSTEM																					
240701 HYDRAULIC PUMP MOTOR	67020	67W20	68H20	377	0		0		0		21	7.9	26.9	28.6	Y	09	0.10	09		2.0	1.5 2.1
240702 HAND PUMP	67020	67W20	68H20	7	093 50		381 50		0		80	0.0	0.0	0.0	N		0.0	09		2.5	1.3 1.3
240703 ACCUMULATOR	67020	67W20	68H20	158	381 59		525 14		651 5		15	2.5	8.1	12.2	Y	09	0.10	09		3.0	2.0 2.8
240704 SOLENOID VALVE	67020	67W20	68H20	60	381 81		374 13		242 6		30	7.5	50.0	0.0	N		0.0	09		0.8	1.9 3.2
240705 LINE/HOSE	67020	67W20	67020	40	381 69		020 8		111 4		59	0.0	0.0	0.0	Y	09	0.05	09		0.3	1.2 1.7
240800 APP INSTRUMENT SUBSYSTEM																					
240801 THERMOCOUPLE	67020	67W20	68B20	5	070 33		127 33		567 33		0	0.0	0.0	0.0	N		0.0	09 12		3.0	2.4 4.4
240802 HOURMETER	67020	67W20	68B20	7	730 50		958 50		0		80	0.0	0.0	0.0	N		0.0	09		0.5	2.0 3.0
240900 APP ENGINE MOUNT SUBSYSTEM																					

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
240901 TUBULAR MOUNT	67020	67W20	67020	11	020 50		780 25		127 3		92	0.0	0.0	0.0	N		0.0	09		4.0	3.9 6.3
240902 RUBBER SHOCK MOUNT	67020	67W20	67020	7	020 50		070 50		 0		25	0.0	0.0	0.0	N		0.0	09		1.0	2.8 5.1
260000 DRIVES - TRANSMISSION SYSTEM																					
260100 MAIN XMSN DRIVES SUBSYSTEM																					
260101 ENGINE DRIVE SHAFT	67020	67W20	68D20	324	020 41		381 22		127 8		61	9.1	14.7	0.0	Y	09	0.20	09 12		6.0	2.0 2.8
260102 SHAFT COUPLING - THOMAS TYPE	67020	67W20	68D20	5	780 46		381 28		135 17		59	50.0	50.0	12.2	Y	09 10	0.30	09 11		2.5	1.2 1.6
260103 SHAFT COUPLING-ZURN TYPE	67020	67W20	68D20	47	020 24		106 16		127 15		57	0.0	0.0	0.0	Y	09	0.20	09		2.0	1.5 1.6
260104 SHAFT TO COUPLING CLAMP	67020	67W20	68D20	11	020 57		127 11		092 5		94	0.0	0.0	0.0	Y	09	0.10	09 10	11 12	3.0	1.5 2.2
260105 HANGER BEARING	67020	67W20	68D20	132	020 44		710 23		381 10		102	1.8	3.3	0.0	Y	09	0.10	09 10		2.0	1.8 2.0
260106 BEARING SHOCK MOUNT	67020	67W20	68D20	1	230 50		381 50		 0		160	0.0	0.0	0.0	Y	09	0.10	09 10		1.5	2.3 2.3
260107 ENG/SYNC DRIVE SHFT (HVY HELO)	67020	67W20	68D20	55	020 10		070 5		750 3		47	10.0	16.6	24.0	Y	09	0.20	09 12		6.0	2.2 5.2
260200 TAIL ROTOR/AUX POWER DR SUBSYS																					
260201 T.R./AUX POWER PLANT SHAFT	67020	67W20	68D20	32	020 42		780 19		935 17		94	12.9	19.8	33.4	Y	09	0.20	09		6.0	1.2 1.5
260202 SHAFT COUPLING - THOMAS TYPE	67020	67W20	68D20	7	070 22		780 16		410 12		78	4.8	29.0	0.0	Y	09 10	0.30	09 11		2.5	0.8 1.0
260203 SHAFT COUPLING - ZURN TYPE	67020	67W20	68D20	44	020 44		710 23		381 10		102	1.8	3.3	0.0	Y	09	0.20	09		2.0	1.8 2.0
260204 SHAFT TO COUPLING CLAMP	67020	67W20	68D20	11	020 57		127 11		092 5		94	0.0	0.0	0.0	Y	09	0.10	09 10	11 12	3.0	1.5 2.2
260205 HANGER BEARING	67020	67W20	68D20	132	020 44		710 23		381 10		102	1.8	3.3	0.0	Y	09	0.10	09 10		2.0	1.8 2.0

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC / NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
260206	67020	67W20	68D20	1	230		381				160	0.0	0.0	0.0	Y	09	0.10	09		0.8	2.3
VISCOUS DAMPER					50		50		0												2.3
260300																					
MAIN ROTOR DRIVE SUBSYSTEM																					
260301	67020	67W20	68D20	83	381		780		020		27	7.7	14.9	25.0	Y	09	0.20	05		14.0	3.9
ROTOR DRIVE SHAFT & HSG ASSY					14		9		6												7.8
260302	67020	67W20	67020	27	070		730		306		12	3.5	4.6	0.0	N		0.0	09		4.0	0.8
RDS MAGNETIC CHIP DETECTOR					42		19		6												1.0
260400																					
FAN DRIVES SUBSYSTEM																					
260401	67020	67W20	68D20	46	020		190		105		27	8.9	15.2	50.0	Y	09	0.20	09	12	6.0	1.7
FAN DRIVE SHAFT ASSEMBLY					15		15		12							10		10			2.0
260402	67020	67W20	67020	48	020		127		230		42	5.1	6.6	50.0	Y	09	0.10	09		1.0	0.5
DRIVE BELT					50		11		9							10					0.5
260403	67020	67W20	67020	8	020		070		190		70	0.0	0.0	0.0	N		0.0	09		1.0	1.0
DRIVE BELT PULLEY					50		21		14												1.1
260500																					
SEPARATE CLUTCH UNIT SUBSYS																					
260501	67020	67W20	68D20	398	381		070		374		2	11.7	21.9	0.0	N		0.0	09		4.0	2.8
FREE WHEELING ASSY					92		3		3												4.0
260502	67020	67W20	67020	44	070		730		306		7	4.2	5.6	0.0	N		0.0	09		4.0	0.6
MAG CHIP DETECTOR					48		24		8												0.7
260503	67020	67W20	68D20	1208	020		381		127		12	3.7	17.2	5.9	Y	09	0.20	09		3.0	2.2
AUX POWER PLANT SHAFT CLUTCH					55		12		12												3.3
260600																					
TRANSMISSION/GEARBOX SUBSYSTEM																					
260601	67020	67W20	68D20	13	372		381		306		20	29.3	28.3	50.0	Y	09	0.70	09		14.0	3.2
ENGINE TRANSMISSION ASSY					43		29		14									12			7.4
260602	67020	67W20	68D20	117	381		947		106		50	6.5	8.8	23.8	Y	09	1.50	09		25.0	2.5
COMBINING TRANSMISSION ASSY					55		5		5									12			5.4
260603	67020	67W20	68D20	581	381		020		730		25	4.1	5.8	25.0	Y	09	1.50	09		22.0	3.6
MAIN ROTOR TRANSMISSION ASSY					42		15		6									12			7.1
260604	67020	67W20	68D20	249	381		020		230		37	11.1	16.6	66.7	Y	09	0.70	09		14.0	1.5
INTERMEDIATE GEARBOX ASSY					35		13		8									12			1.8

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
260605 67020 67W20 68D20 TAIL ROTOR GEARBOX ASSY	574	381 19		020 19		916 10		21	12.0	17.5	44.1	Y	09	1.00	09 11	12	27.0	1.7 2.4
260606 67020 67W20 68D20 M.R. TRANSMISSION (HVY HELO)	196	381 22		070 9		106 7		22	9.7	12.6	45.0	Y	09	2.00	09 12		26.0	5.6 17.7
260607 67020 67W20 68D20 INT GEARBOX ASSY (HEAVY HELO)	85	381 34		372 27		070 7		21	19.7	24.8	54.1	Y	09	0.90	09 12		18.0	2.3 5.4
260608 67020 67W20 68D20 T.R. GEARBOX ASSY (HEAVY HELO)	108	381 15		108 13		070 9		84	0.0	0.0	0.0	Y	09	1.20	09 11	12	35.0	2.4 7.0
260700 TRANSMISSION OIL SUBSYSTEM																		
260701 67020 67W20 67020 OIL TANK	23	730 25		230 20		070 17		29	0.0	0.0	0.0	Y	09	0.20	09		3.0	0.7 0.7
260702 67020 67W20 67020 OIL PUMP	13	381 41		374 18		242 9		48	19.3	24.6	33.1	Y	09	0.10	09 12		4.0	2.2 2.9
260703 67020 67W20 67020 PRESSURE RELIEF VALVE	2	381 43		290 14		230 14		0	42.9	50.1	0.0	N		0.0	08		0.5	0.9 1.0
260704 67020 67W20 67020 OIL FILTER	2	105 100		0		0		35	0.0	0.0	0.0	Y	01 09	0.10	09 12		10.0	0.6 0.7
260705 67020 67W20 67020 OIL COOLER	65	070 30		381 25		020 15		7	10.6	18.2	50.0	Y	09	0.10	09		1.5	1.5 1.6
260706 67020 67W20 67020 THERMOSTATIC VALVE	10	127 33		230 33		381 33		0	0.0	0.0	0.0	N		0.0	08		0.5	0.8 0.8
260707 67020 67W20 67020 LINE/HOSE	5	381 38		127 23		020 20		35	26.0	41.0	12.0	Y	09	0.05	09		0.3	1.6 2.2
260800 MOUNTS SUBSYSTEM																		
260801 67020 67W20 67020 PYLON MOUNT ASSEMBLY	256	020 70		117 10		190 4		60	0.0	0.0	0.0	Y	09	0.20	09		20.0	3.2 4.6
260802 67020 67W20 67020 DAMPER	21	020 48		117 16		135 7		40	0.0	0.0	0.0	Y	09	0.10	09		1.0	3.6 6.1
260803 67020 67W20 67020 LIFT LINK	73	020 59		127 9		660 9		44	6.3	10.7	0.0	Y	09 10	0.10	09 10		3.0	1.3 1.7
260804 67020 67W20 67020 TUBULAR MOUNT ASSY	13	020 20		246 20		730 20		28	0.0	0.0	0.0	N		0.0	09		4.0	5.0 6.8

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
260900 ROTOR BRAKE SUBSYSTEM																					
260901 BRAKE ASSEMBLY	67020	67W20	68H20	203	020 50		127 11		381 5		24	6.7	13.1	0.0	Y	01 09	0.10	08 09	11	2.0	2.3 5.0
260902 DISC	67020	67W20	68D20	7	020 100		0		0		12	0.0	0.0	0.0	Y	09	0.10	08 09	11 12	4.0	2.7 5.5
260903 LINE/HOSE	67020	67W20	67020	48	242 28		381 19		374 16		38	3.3	8.7	0.0	Y	09	0.05	08 09		0.3	1.4 2.3
260904 SWITCH	67020	67W20	68F20	59	070 19		037 13		127 13		0	6.3	8.4	99.9	N		0.0	08		1.3	0.9 1.5
260905 THROTTLE INTERLOCK	67020	67W20	68F20	59	070 19		037 13		127 13		0	6.3	8.4	99.9	N		0.0	08		0.8	0.9 1.5
260906 SOLENOID	67020	67W20	68F20	683	374 26		901 13		242 10		7	8.7	14.3	0.0	N		0.0	08		0.8	1.0 1.4
260907 WIRING	67020	67W20	68F20	26	127 29		374 29		070 14		20	0.0	0.0	0.0	N		0.0	08 09		1.5	0.9 1.7
290000 POWER PLANT INSTALLATION SYS																					
290100 ENG MOUNT/SUSPENSION SUBSYS																					
290101 ENGINE MOUNT	67020	67W20	67020	65	020 35		710 25		730 17		60	8.1	19.8	0.0	Y	09	0.07	09 19		2.0	1.6 2.4
290102 ENGINE MOUNT BEARING	67020	67W20	67020	28	020 74		710 16		730 10		48	8.1	23.3	0.0	Y	09	0.07	09 11		1.5	1.5 1.7
290103 TORQUE SENSOR	67020	67W20	67020	30	710 50		037 15		425 4		50	7.5	15.0	0.0	Y	09	0.20	09		3.0	2.7 3.7
290200 ENG AIR PARTCLE SEPARTR SUBSYS																					
290201 PARTICLE SEPARATOR ASSY	67020	67W20	67020	117	070 15		190 15		230 15		87	0.0	0.0	0.0	Y	09	0.30	08 09	11	8.0	1.5 1.6
290202 DOOR ACTUATOR	67020	67W20	67020	93	127 36		242 12		374 12		13	0.0	0.0	0.0	N		0.0	08 09		1.5	1.8 3.2
290203 CABLE ASSEMBLY	67020	67W20	67020	96	020 48		127 11		230 9		42	5.1	6.6	0.0	N		0.0	08 09		4.0	1.1 1.6

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
290204 PULLEY	67020	67W20	67020	12	020 50		070 21		190 14		99	0.0	0.0	0.0	N		0.0	08 09		1.0	1.0 1.1
290205 CONTROL LEVER	67020	67W20	67020	50	070 45		135 12		127 5		50	0.7	1.0	99.9	N		0.0	08		1.5	0.9 1.2
290206 PRESSURE SWITCH	67020	67W20	68F20	11	070 33		106 33		108 33		16	0.0	0.0	0.0	N		0.0	08		0.8	0.5 0.5
290207 WIRING HARNESS	67020	67W20	68F20	2	070 100		0		0		15	0.0	0.0	0.0	N		0.0	08 09		1.5	0.5 0.5
290208 PARTICLE SEP ASSY (HEAVY HELO)	67020	67W20	67020	959	947 30		190 8		106 6		77	1.6	4.4	54.6	Y	09	0.50	08 09	11	10.0	1.4 1.7
290300 AIR INDUCTION SUBSYSTEM																					
290301 INLET SCREEN	67020	67W20	67020	39	230 33		070 25		947 17		46	0.0	0.0	0.0	Y	09	0.10	09		2.0	1.0 1.2
290302 INLET DUCT/PLENUM CHAMBER	67020	67W20	68G20	374	190 43		106 18		105 5		60	1.4	3.9	0.0	Y	09	0.10	09		2.0	1.7 1.9
290303 ALTERNATE AIR BYPASS DOOR	67020	67W20	68G20	15	070 75		190 13		585 6		0	0.0	0.0	0.0	Y	08 09	0.10	09		1.5	2.3 3.3
290400 AIRCRAFT EXHAUST SUBSYSTEM																					
290401 TAILPIPE	67020	67W20	68G20	13	190 100		0		0		69	50.0	50.0	0.0	Y	09	0.10	09		2.0	0.7 0.8
290402 TAILPIPE ADAPTER/EXTENSION	67020	67W20	68G20	22	190 75		730 12		105 5		52	20.0	35.0	0.0	Y	09	0.10	09		1.5	0.7 0.8
290403 TAILPIPE CLAMP/COUPLING	67020	67W20	67020	10	106 33		167 33		730 33		0	0.0	0.0	0.0	N		0.0	09 12		5.0	0.6 0.8
290500 AIRCRAFT BLEED AIR SUBSYSTEM																					
290501 BLEED AIR VALVE	67020	67W20	67020	13	070 67		111 17		537 17		35	0.0	0.0	0.0	N		0.0	08 09		0.8	1.4 1.5
290502 LINE/HOSE	67020	67W20	67020	5	127 33		106 17		135 17		23	0.0	0.0	0.0	Y	09	0.05	09		0.3	1.9 2.5
290600 ENG ANTI-ICE/DE-ICE SUBSYSTEM																					

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC / NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
290601	67020	67W20	68F20	11	242		374		730		53	0.0	0.0	0.0	N		0.0	09		10.0	2.4
TEMPERATURE SENSOR					33		33		33									23			5.4
290602	67020	67W20	68F20	4	242		374				29	0.0	0.0	0.0	N		0.0	08		1.3	0.7
ENGINE ANTI-ICE SWITCH					60		40		0												1.2
290603	67020	67W20	68F20	10	070		111		537		46	0.0	0.0	0.0	N		0.0	09		0.8	1.8
SOLENOID VALVE					33		33		33												1.9
290604	67020	67W20	68F20	2	070						15	0.0	0.0	0.0	N		0.0	09		1.5	0.5
WIRING HARNESS					100		0		0									09			0.5
290700																					
START SUBSYSTEM																					
290701	67020	67W20	68F20	12	381		242		374		29	22.8	48.1	50.0	N		0.0	09		0.8	1.3
STARTER SWITCH					31		15		15												2.5
290702	67020	67W20	68F20	3	070		450		615		0	0.0	0.0	0.0	N		0.0	08		0.8	1.2
STARTER RELAY					33		33		33												2.3
290703	67020	67W20	68F20	40	106		374		105		0	0.0	0.0	0.0	N		0.0	08		0.8	1.5
STARTER SOLENOID					20		20		20												2.2
290704	67020	67W20	68F20	123	374		070		730		4	13.5	21.7	19.9	N		0.0	09		2.0	2.2
STARTER GENERATOR					34		11		11									09			3.2
290705	67020	57W20	68H20	297	381		037		374		29	17.7	40.8	6.7	Y	09	0.10	08		3.0	1.3
HYDRAULIC STARTER					42		18		15									09			1.8
290706	67020	67W20	68H20	32	374		070		242		15	30.3	37.1	10.1	N		0.0	08		0.8	1.3
STARTER PRESSURE SWITCH					14		11		11												1.8
290707	67020	67W20	69H20	36	381		242		374		17	13.8	34.5	0.0	Y	09	0.07	09		1.0	1.4
ENG START HYD MANIFOLD VALVE					46		14		11									09			1.8
290800																					
THROTTLE/POWER LEVER SUBSYSTEM																					
290801	67020	67W20	67020	146	374		242		127		9	12.3	16.7	24.5	Y	08	0.20	08		3.0	0.9
CONTROL QUADRANT ASSY					22		14		9							09		09			1.2
290802	67020	67W20	67020	57	374		242		901		10	9.7	14.0	39.6	N		0.0	08		2.0	1.1
ENGINE CONDITION CONTROL BOX					36		15		9												1.5
290803	67020	67W20	67020	5	127		135		437		5	0.0	0.0	0.0	Y	08	0.20	09		1.5	3.5
THROTTLE TWIST GRIP MECHANISM					33		33		33							09		09			4.3
290804	67020	67W20	67020	3	020		710		730		70	0.0	0.0	0.0	Y	09	0.10	08		0.5	1.1
ENGINE CONTROL LINKAGE					36		22		12									09			1.1

INSPECTION ANALYSIS MASTER CONFIGURATI[illegible]N FILE

WUC / NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
290805	67020	67W20	67020	11	135		127		780		30	7.6	9.4	0.0	Y	09	0.10	08	13	3.0	2.4
CABLE/PULLEY					24		21		11									09			5.0
290806	67020	67W20	67020	1	730						0	0.0	0.0	0.0	N		0.0	08		3.0	1.2
CONTROL CABLE TENSIONER					100		0		0									09			1.2
290807	67020	67W20	67020	194	020		410		127		19	6.8	11.7	66.7	Y	09	0.10	08		1.5	1.2
FLEX CABLE					41		21		8									09			1.7
290808	67020	67W20	67020	1	020						138	0.0	0.0	0.0	N		0.0	09		0.5	0.5
BOOT/SEAL					100		0		0												0.5
290809	67020	67W20	68820	217	127		020		585		9	8.0	13.2	19.8	N		0.0	08		2.0	1.4
DROOP COMPENSATOR CAM BOX					40		32		6									09			1.7
290810	67020	67W20	68F20	2	127						0	0.0	0.0	0.0	N		0.0	08		1.3	1.2
TRIM SWITCH					100		0		0									09			1.7
290811	67020	67W20	68F20	459	127		242		135		20	3.5	4.6	50.0	N		0.0	08		1.0	0.9
RPM CONTROL ACTUATOR					31		17		8									09			1.2
290812	67020	67W20	68F20	5	615		719		730		15	20.0	60.0	99.9	N		0.0	08		1.5	2.0
ELECTRICAL HARNESS ASSY					60		20		20									09			3.0
290900																					
RPM WARNING SUBSYSTEM																					
290901	67020	67W20	68F20	120	374		127		615		2	15.7	17.0	0.0	N		0.0	08		0.8	1.9
ENGINE SPEED SENSITIVE SWITCH					29		23		15												3.1
290902	67020	67W20	68F20	861	127		374		901		2	2.7	2.9	42.4	N		0.0	08		3.0	1.1
RPM WARNING LIMIT DETECTOR/BOX					32		31		17									09			1.7
290903	67020	67W20	68F20	130	242		105		106		5	1.5	1.7	30.0	N		0.0	08		1.5	1.1
AUDIO WARNING UNIT					40		10		10									09			1.7
291000																					
AIRCRAFT LUBRICATION SUBSYSTEM																					
291001	67020	67W20	67020	5	381						20	0.0	0.0	0.0	Y	09	0.20	09		3.0	1.5
OIL TANK					100		0		0												1.5
291002	67020	67W20	67020	29	105		780		070		53	0.0	0.0	0.0	Y	09	0.10	09		2.0	1.7
OIL COOLER BLOWER					17		17		13									10			2.4
291003	67020	67W20	68G20	3	190						139	0.0	0.0	0.0	N		0.0	09		1.0	0.5
BLOWER DUCT					100		0		0												0.5
291004	67020	67W20	67020	52	070		020		190		26	0.0	0.0	0.0	Y	09	0.10	09		1.5	2.2
OIL COOLER					19		13		13												2.5

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
291005 THERMOSTATIC BYPASS VALVE	67020	67W20	67020	2	135 100		0		0		0	0.0	0.0	0.0	N		0.0	09		0.5	0.6 1.[illegible]
291006 SOLENOID SHUT-OFF VALVE	67020	67W20	68F20	5	242 33		374 33		730 33		0	0.0	0.0	0.0	N		0.0	09		0.8	1.[illegible] 1.2
291007 LINE/HOSE	67020	67W20	67020	6	381 26		020 23		127 13		28	9.2	26.8	0.0	Y	09	0.05	09		0.3	1.0 1.8
410000 AIR COND/SURFCE ICE CONTRL SYS																					
410100 WINDSHIELD ANTI-ICE SUBSYSTEM																					
410101 THERMOSTAT	67020	67W20	68F20	7	730 100		0		0		0	0.0	0.0	0.0	N		0.0	08		0.8	0.5 0.5
410102 ANTI-ICE SWITCH	67020	67W20	68F20	4	242 60		374 40		0		29	0.0	0.0	0.0	N		0.0	09		1.3	0.7 1.2
410103 HEAT RELAY	67020	67W20	68F20	3	070 33		450 33		615 33		0	0.0	0.0	0.0	N		0.0	08		0.8	1.5 2.2
410104 HEATER ELEMENT	67020	67W20	68F20	4	615 100		0		0		0	0.0	0.0	0.0	N		0.0	07 08		5.0	1.0 1.0
420000 ELECTRICAL SYSTEM																					
420100 AC POWER SUBSYSTEM																					
420101 GENERATOR	67020	67W20	65F20	22	374 20		585 20		070 12		7	0.0	0.0	0.0	N		0.0	09		8.0	1.9 3.1
420102 VOLTAGE REGULATOR	67020	67W20	68F20	7	374 38		127 13		160 13		22	14.2	33.3	0.0	N		0.0	08 09		1.0	0.8 0.9
420103 RELAY	67020	67W20	68F20	3	070 100		0		0		0	0.0	0.0	0.0	N		0.0	08 09		0.8	1.5 2.3
420104 CURRENT LIMITER	67020	67W20	68F20	1	070 50		472 50		0		0	0.0	0.0	0.0	N		0.0	08 09		0.1	0.4 2.4
420105 RECEPTACLE	67020	67W20	68F20	4	190 40		070 20		105 20		55	0.0	0.0	0.0	N		0.0	08 09		1.0	1.4 1.4
420105 TRANSFORMER	67020	67W20	68F20	23	381 29		106 14		450 14		0	14.3	33.4	99.9	N		0.0	08 09		1.0	1.0 1.2

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
420107	67020	67W20	68F20	9	070		450		108		32	0.0	0.0	0.0	N		0.0	08		1.0	0.8
TRANSFORMER RECTIFIER					40		40		20									09			1.0
420108	67020	67W20	68F20	116	190		374		169		12	7.4	11.2	39.8	N		0.0	08		1.5	1.1
INVERTER					35		20		15									09			1.6
420109	67020	67W20	68F20	64	374		958		901		18	16.3	19.5	44.9	N		0.0	08		1.3	1.4
CONTROL SWITCH					26		13		10												2.4
420200																					
DC POWER SUPPLY SUBSYSTEM																					
420201	67020	67W20	68F20	141	374		070		169		13	20.5	26.7	12.4	N		0.0	09		8.0	1.9
GENERATOR					28		19		9												3.7
420202	67020	67W20	68F20	84	127		169		374		3	6.0	6.6	0.0	N		0.0	08		1.0	0.6
VOLTAGE REGULATOR					35		21		17									09			0.9
420203	67020	67W20	68F20	34	450		374		070		32	10.4	11.3	0.0	N		0.0	08		0.8	0.9
RELAY					23		22		13									09			1.0
420204	67020	67W20	68F20	1	070		472				0	0.0	0.0	0.0	N		0.0	08		0.1	0.4
CURRENT LIMITER					50		50		0									09			2.4
420205	67020	67W20	68F20	46	070		190				70	0.0	0.0	0.0	N		0.0	08		1.0	2.4
RECEPTACLE					50		50		0									09			4.5
420206	67020	67W20	68F20	1634	169		374		962		28	3.1	6.0	0.0	Y	09	0.10	08		15.0	0.7
BATTERY					48		17		4									09			0.8
420207	67020	67W20	68F20	163	230		170		190		90	1.2	2.3	0.0	Y	09	0.10	09		10.0	1.2
BATTERY SUMP JAR					60		9		7												1.4
420300																					
ELECT PWR DISTRIBUTION SUBSYS																					
420301	67020	67W20	68F20	3	127						0	0.0	0.0	0.0	N		0.0	08		1.3	0.3
MASTER SWITCH CONTROL PANEL					100		0		0									09			0.3
420302	67020	67W20	68F20	266	070		730		020		8	1.5	3.0	0.0	N		0.0	08		36.0	1.5
AIRCRAFT WIRING					18		13		8									09			1.9
440000																					
LIGHTING SYSTEM																					
440100																					
INTERIOR LIGHTS SUBSYSTEM																					
440101	67020	67W20	68F20	61	080		070		730		9	0.0	0.0	0.0	1	04	0.10	08		0.3	0.6
COCKPIT/CABIN LIGHT					40		14		10									09			0.8

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP EMT/ HRS
440102 INSTRUMENT LIGHT	67020	67W20	68F20	58	080 61		106 11		160 6		8	0.0	0.0	0.0	Y	04	0.03	08 09		0.1	0.6 0.8
440103 CONTROL PANEL	67020	67W20	68F20	529	374 21		958 14		080 7		13	0.8	0.9	0.0	Y	04	0.10	08 09		1.0	0.9 1.3
440200 EXTERIOR LIGHTS SUBSYSTEM																					
440201 LANDING LIGHT	67020	67W20	68F20	321	080 35		374 18		135 13		16	0.0	0.0	0.0	Y	04	0.10	08 09		1.0	0.7 0.8
440202 SEARCH LIGHT	67020	67W20	68F20	361	374 28		080 21		958 9		21	0.0	0.0	0.0	Y	04	0.20	08 09		2.0	0.8 0.9
440203 POSITION/FORMATION LIGHT	67020	67W20	68F20	41	030 59		070 10		106 6		12	3.4	4.7	10.5	Y	04	0.10	08 09		0.3	0.6 0.7
440204 ANTI-COLLISION LIGHT	67020	67W20	68F20	501	080 49		374 13		070 9		6	1.1	1.6	30.5	Y	04	0.10	08 09		1.5	0.9 1.1
440205 FLASHER UNIT	67020	67W20	68F20	32	374 50		450 20		160 10		14	0.0	0.0	0.0	N		0.0	08		0.5	0.8 1.3
440206 CONTROL PANEL	67020	67W20	68F20	6	093 50		730 50		0		0	0.0	0.0	0.0	Y	04	0.10	08 09		0.5	0.7 0.7
450000 HYDRAULIC POWER SYSTEM																					
450100 HYDRAULIC SOURCE/DISTRI SUBSYS																					
450101 RESERVOIR	67020	67W20	68H20	205	381 53		230 21		410 8		35	21.7	37.2	0.0	Y	09	0.10	03 09		3.0	0.8 1.1
450102 HYDRAULIC PUMP	67020	67W20	68H20	170	381 40		374 14		020 8		8	6.1	8.8	66.7	Y	09	0.10	09		4.0	1.1 1.5
450103 HYDRAULIC HAND PUMP	67020	67W20	68H20	320	070 60		020 10		381 10		17	2.0	8.7	0.0	Y	09	0.10	09		2.5	1.1 1.5
450104 HYDRAULIC FILTER	67020	67W20	67020	251	306 45		230 44		381 4		51	0.0	0.0	0.0	Y	01 09	0.10	04 08	09 12	10.0	0.9 1.4
450105 ACCUMULATOR	67020	67W20	68H20	158	381 59		525 14		651 5		15	2.5	8.1	12.2	Y	09	0.10	08 09		3.0	2.0 2.8
450106 SOLENOID VALVE	67020	67W20	68F20	3	381 100		0		0		0	0.0	0.0	0.0	N		0.0	08 09		0.8	1.0 1.8

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
450107 RELIEF VALVE	67020	67W20	68H20	5	381 47		106 13		374 13		0	27.1	31.6	0.0	N		0.0	08		0.5	0.8 0.8
450108 CHECK VALVE	67020	67W20	68H20	4	381 90		020 10		 0		13	0.0	0.0	0.0	N		0.0	08		0.5	1.2 2.2
450109 DRAIN VALVE	67020	67W20	68H20	7	106 50		190 50		 0		160	0.0	0.0	0.0	N		0.0	09		0.5	0.8 0.8
450110 HYDRAULIC MOTOR	67020	67W20	68H20	24	381 26		585 22		070 15		7	0.0	0.0	0.0	N		0.0	08 09		2.5	1.2 1.4
450111 SWITCH	67020	67W20	68F20	142	615 18		242 11		020 9		16	13.4	20.5	0.0	N		0.0	08		1.3	1.1 1.6
450112 HOSE/LINE	67020	67W20	68H20	1	381 64		020 21		780 6		35	3.8	8.0	32.4	Y	09	0.05	08 09		0.3	1.0 1.2
450200 HYDRAULIC BOOST SUBSYSTEM																					
450201 ACCUMULATOR	67020	67W20	68H20	14	020 25		381 25		525 25		10	0.0	0.0	0.0	Y	09	0.10	08 09		3.0	0.9 1.4
450202 FLIGHT BOOST MANIFOLD	67020	67W20	68H20	15	381 59		070 6		127 6		52	15.6	65.8	50.0	Y	09	0.07	08 09		1.5	1.9 2.7
450203 CONTROL/PILOT VALVE	67020	67W20	68H20	1	242 50		381 50		 0		0	0.0	0.0	0.0	Y	09	0.10	08 09		2.0	1.7 2.0
450204 CYLINDER	67020	67W20	68H20	604	381 29		710 16		127 11		52	9.2	13.2	27.5	Y	09	0.10	08 09	12 25	18.5	1.8 2.9
450206 IRREVERSIBLE VALVE	67020	67W20	68H20	15	381 43		167 36		127 14		90	0.0	0.0	0.0	N		0.0	08 09		1.0	1.8 2.6
450207 LOCK-OUT VALVE	67020	67W20	68H20	47	135 29		381 29		020 14		45	0.0	0.0	0.0	N		0.0	08 09		2.0	1.5 2.8
450208 PRESSURE REDUCER VALVE	67020	67W20	68H20	8	381 28		150 22		006 11		10	0.0	0.0	0.0	N		0.0	08		0.5	3.4 5.3
450300 HYD PRESSURE INDICATING SUBSYS																					
450301 PRESSURE SWITCH	67020	67W20	68F20	6	374 33		730 17		070 8		13	9.1	12.5	0.0	N		0.0	08 09		0.8	0.6 0.8
450400 HYDRAULIC COOLING SUBSYSTEM																					

WUC NOMENCLATURE	MDS 1	MDS 2	MDS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TDS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
450401 COOLER BLOWER	67020	67W20	67020	65	242 29		135 13		900 13		42	13.4	23.2	0.0	Y	09	0.10	05 09		4.0	1.4 1.7
450402 BLOWER DUCT	67020	67W20	68G20	2	780 100		0		0		0	0.0	0.0	0.0	N		0.0	09		1.0	4.0 4.0
450403 ELECTRO-HYDRAULIC MOTOR	67020	67W20	68H20	9	070 40		374 40		381 20		0	0.0	0.0	0.0	N		0.0	09		2.0	1.5 2.5
450404 HYD FLUID COOLER	67020	67W20	68H20	230	381 50		190 13		306 8		14	11.7	26.5	42.3	Y	09	0.10	09		1.5	1.7 2.2
450405 THERMOSTAT	67020	67W20	68F20	61	615 27		020 21		374 12		31	10.6	18.6	0.0	N		0.0	08		0.8	0.8 0.9
460000 FUEL SYSTEM																					
460100 FUEL SUPPLY/DISTRI SUBSYSTEM																					
460101 FUEL CELL	67020	67W20	67020	17	374 14		731 11		190 9		28	1.9	2.7	47.0	N		0.0	09		30.0	3.9 7.5
460102 SUMP PUMP	67020	67W20	68F20	79	242 35		381 13		070 8		11	9.1	11.1	0.0	N		0.0	05		4.0	1.9 2.5
460103 FUEL FILTER	67020	67W20	67020	79	070 25		381 25		230 21		29	15.5	27.1	0.0	Y	01 09	0.10	04 09	12	10.0	0.8 0.8
460104 ENGINE FUEL PURIFIER	67020	67W20	67020	13	381 57		230 14		020 7		38	8.8	19.7	99.9	Y	09	0.10	09		10.0	1.0 1.3
460105 FUEL SELECTOR VALVE	67020	67W20	67020	5	242 67		450 33		0		0	0.0	0.0	0.0	N		0.0	08		1.3	1.6 2.9
460106 LINE/HOSE	67020	67W20	67020	3	020 38		381 32		780 6		24	5.9	11.4	0.0	Y	09	0.05	04 09		0.3	1.6 2.1
460108 PRESSURE FUELING ADAPTER	67020	67W20	67020	7	381 100		0		0		0	0.0	0.0	0.0	N		0.0	09 10		2.0	1.0 1.0
460109 DEFUELING VALVE	67020	67W20	67020	12	381 43		020 29		780 14		20	32.9	75.0	0.0	N		0.0	08 09		4.0	0.9 1.0
460110 SUMP DRAIN	67020	67W20	67020	9	381 73		020 9		106 [illegible]		13	10.0	25.0	0.0	Y	04	0.10	08 09		1.0	0.5 0.5
460200 AUX POWER PLANT FUEL SUBSYSTEM																					

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
460201	67020	67W20	68F20	9	242		361		602		35	0.0	0.0	0.0	N		0.0	09		1.0	1.1
FUEL PUMP					60		20		20												1.3
460202	67020	67W20	68F20	3	381						0	0.0	0.0	0.0	N		0.0	09		0.8	1.0
SOLENOID VALVE					100		0		0												1.8
460203	67020	67W20	67020	33	135		242		080		0	0.0	0.0	0.0	N		0.0	09		0.8	3.5
FUEL SHUTOFF VALVE					33		22		11												8.0
460204	67020	67W20	67020	1	106		651				35	0.0	0.0	0.0	Y	09	0.05	09		0.3	1.2
LINE/HOSE					67		33		0												2.3
490000 MISCELLANEOUS UTILITIES SYSTEM																					
490100 FIRE WARNING/DETECT SUBSYSTEM																					
490101	67020	67W20	68F20	4	242		374		450		21	15.3	22.1	0.0	Y	09	0.10	08		1.0	0.9
FIRE DETECTION ELEMENT					40		20		20									09			1.4
490102	67020	67W20	68F20	4	242		374		615		0	25.0	50.0	0.0	N		0.0	08		0.8	0.9
AMPLIFIER					50		25		25												1.6
490103	67020	67W20	68F20	8	070		080		374		18	0.0	0.0	0.0	N		0.0	08		1.3	0.7
FIRE DETECTION CONTROL					33		22		22												1.1
490104	67020	67W20	68F20	17	127		374		730		18	0.0	0.0	0.0	N		0.0	08		1.3	0.5
FIRE DETECTION TEST SWITCH					22		22		22												0.9
490200 FIRE EXTINGUISHING SYSTEM																					
490201	67020	67W20	68F20	4	242		374				29	0.0	0.0	0.0	N		0.0	08		1.3	0.7
CONTROL SWITCH					60		40		0									22			1.2
490202	67020	67W20	68F20	14	242		730		080		30	0.0	0.0	0.0	N		0.0	08	22	1.5	2.3
WIRING HARNESS					25		25		13									09			4.0
490203	67020	67W20	67020	29	540		070		931		21	7.3	22.3	50.0	N		0.0	09		1.5	1.1
NITROGEN FIRE BOTTLE					14		14		13												1.1
490204	67020	67W20	67020	7	070		106		780		35	0.0	0.0	0.0	N		0.0	09		0.3	0.7
LINE/HOSE					44		22		22												0.7
490300 WINDSHIELD WIPER SUBSYSTEM																					
490301	67020	67W20	68F20	15	070		093		105		0	0.0	0.0	0.0	N		0.0	08		1.3	0.4
WIPER CONTROL PANEL					25		25		25												0.4

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TDS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
490302	67020	67W20	68F20	3	135		900				69	60.0	99.9	50.0	N		0.0	08		1.5	2.3
WIPER MOTOR					50		50		0									09			2.8
490303	67020	67W20	68F20	3	070						0	0.0	0.0	0.0	N		0.0	08		0.8	1.5
RELAY					100		0		0									09			2.3
490304	67020	67W20	68F20	7	070		127				15	0.0	0.0	0.0	N		0.0	08		1.5	0.5
WIRING HARNESS					50		50		0									09			0.5
490305	67020	67W20	67020	5	070		106		127		35	0.0	0.0	0.0	N		0.0	08		0.5	1.0
MECHANICAL LINKAGE					54		25		11									09			1.0
490306	67020	67W20	67020	12	127		070		135		79	0.0	0.0	0.0	N		0.0	09		0.8	1.1
BLADE ARM					29		14		14												1.3
490307	67020	67W20	67020	2	020						138	0.0	0.0	0.0	N		0.0	09		0.8	1.0
BLADE					100		0		0												1.0
490400																					
BLEED AIR RAIN REMOVAL SUBSYS																					
490401	67020	67W20	67020	7	242						0	0.0	0.0	0.0	N		0.0	09		1.5	4.3
HEAT/RAIN REMOVAL VALVE					100		0		0												6.5
490402	67020	67W20	67020	5	127		106		135		23	0.0	0.0	0.0	N		0.0	09		0.3	1.9
LINE/HOSE					33		17		17												2.5
490500																					
WINDSHIELD WASHER SUBSYSTEM																					
490501	67020	67W20	68F20	4	242		374				29	0.0	0.0	0.0	N		0.0	08		1.3	0.7
WASHER SWITCH					60		40		0												1.2
490502	67020	67W20	68F20	7	108		127				0	0.0	0.0	0.0	N		0.0	08		1.5	0.3
ELECTRIC PUMP					50		50		0									09			0.3
490503	67020	67W20	67020	7	651		958				29	0.0	0.0	0.0	N		0.0	08		3.0	0.5
RESERVOIR					50		50		0									09			0.5
490504	67020	67W20	67020	60	230		127		730		50	0.0	0.0	0.0	N		0.0	08		0.8	0.9
WASHER NOZZLES					33		33		10									09			0.9
490600																					
CARGO SUSPENSION SUBSYSTEM																					
490601	67020	67W20	67020	10	170		127		190		54	0.0	0.0	0.0	Y	09	0.30	08		10.0	1.2
CARGO SUSPENSION ASSEMBLY					33		22		17							10		09			1.2
490602	67020	67W20	67020	30	127		070		374		0	0.0	0.0	0.0	Y	09	0.20	08	10	8.0	1.3
CARGO HOOK ASSEMBLY					22		14		14							10		09	11		1.8

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
490603 CARGO RELEASE PEDAL/CABLE	67020	67W20	67020	34	070 42		127 15		020 9		42	3.1	4.1	0.0	N		0.0	08 09		4.0	1.6 1.6
490604 RELEASE SOLENOID	67020	67W20	68F20	89	242 67		135 17		374 8		13	22.7	45.4	40.0	N		0.0	08 09		0.8	2.0 3.7
490605 RELEASE RELAY	67020	67W20	68F20	6	615 33		160 33		374 33		0	0.0	0.0	0.0	N		0.0	08 09		0.8	1.2 1.8
490606 WINCH CONTROL PANEL	67020	67W20	68F20	7	070 25		029 13		037 13		0	12.5	25.0	0.0	N		0.0	08		2.5	1.0 1.3
490607 HYDRAULIC WINCH ASSEMBLY	67020	67W20	68H20	346	381 43		020 11		070 5		4	0.8	1.4	99.9	Y	09	0.20	09 11		8.0	1.1 1.6
490608 LOAD LEVELER CYLINDER	67020	67H20	58H20	45	381 86		780 8		020 2		40	5.1	9.0	5.0	Y	09	0.10	08 09		8.0	1.9 3.2
490609 WINCH PUMP	67020	67W20	68H20	280	381 60		242 11		374 7		11	16.0	45.9	0.0	Y	09	0.10	08 09		3.0	2.9 6.7
490610 RELIEF/SHUTOFF VALVE	67020	67W20	68H20	45	242 67		135 17		374 8		13	22.7	45.4	40.0	N		0.0	08		0.5	2.0 3.7
490611 LINE/HOSE	67020	67W20	67020	41	381 79		020 5		070 5		22	8.1	16.7	0.0	Y	09	0.05	08 09		0.3	1.4 2.1
490612 HOIST CABLE	67020	67W20	67020	16	070 44		020 22		719 22		35	0.0	0.0	0.0	N		0.0	08 09		15.0	1.1 1.8
490613 LIMIT SWITCH	67020	67W20	68F20	4	242 60		374 40		 0		29	0.0	0.0	0.0	N		0.0	08		0.8	0.7 1.2
490614 CONTROL PANEL	67020	67W20	68F20	9	106 33		080 25		127 25		0	0.0	0.0	0.0	N		0.0	08		1.3	0.6 0.8
490615 GUILLOTINE	67020	67W20	67020	7	127 75		730 25		 0		0	0.0	0.0	0.0	N		0.0	09 10	12	3.0	1.2 1.2
490700 COMBUSTION HEAT/DEFOG SUBSYS																					
490701 COMBUSTION HEATER ASSEMBLY	67020	67W20	67020	43	070 22		190 11		242 11		29	20.9	20.9	0.0	N		0.0	09		5.0	1.5 2.7
490702 AIR BLOWER	67020	67W20	68F20	96	374 17		615 12		900 10		19	2.3	2.7	99.9	N		0.0	09		3.0	1.7 3.1
490703 VENTILATION/HEATER DUCT	67020	67W20	68G20	3	106 20		190 20		135 10		63	0.0	0.0	0.0	N		0.0	09		0.5	1.0 1.4

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
490704 67020 67W20 68F20	41	070		374		108		29	0.0	0.0	0.0	N		0.0	09		0.8	2.0
AIR PRESSURE SWITCH		46		27		9												2.6
490705 67020 67W20 68F20	6	730						0	0.0	0.0	0.0	N		0.0	09		1.3	0.8
CABIN HEAT CONTROL PANEL		100		0		0												1.3
490706 67020 67W20 67020	6	190		070		246		35	0.0	0.0	0.0	Y	09	0.05	09		0.3	0.7
HEATER FUEL LINE		50		17		17												0.7
490800																		
BLEED AIR HEAT/DEFOG SUBSYSTEM																		
490801 67020 67W20 68F20	9	730		070		105		0	0.0	0.0	0.0	N		0.0	08		3.0	1.5
CONTROL PANEL		33		33		33									09			1.8
490802 67020 67W20 68F20	3	381		242				0	0.0	0.0	0.0	N		0.0	08		0.8	1.0
SOLENOID VALVE		60		40		0									09			1.8
490803 67020 67W20 67020	1	190		947		730		87	0.0	0.0	0.0	N		0.0	08		0.3	0.9
HEATER DUCT		83		10		7									09			1.2
490900																		
ELECTRIC CHIP DETECTOR SUBSYS																		
490901 67020 67W20 69F20	52	615		450		374		34	17.9	22.0	50.0	N		0.0	08		0.8	1.5
CHIP DETECTOR RELAY PANEL		36		21		14												2.1
490902 67020 67W20 67020	18	070		230		381		19	10.1	13.6	13.0	N		0.0	08		5.0	0.8
CHIP DETECTOR		54		11		6												1.0
491000																		
VISUAL AURAL DEBARK SUBSYSTEM																		
491001 67020 67W20 68F20	9	730		070		105		0	0.0	0.0	0.0	N		0.0	08		1.3	1.5
CONTROL PANEL		33		33		33												1.8
491002 67020 67W20 68F20	22	374		070		450		27	0.0	0.0	0.0	N		0.0	05		1.3	0.9
WARNING HORN		33		17		17									08			1.4
491003 67020 67W20 68F20	7	242						0	0.0	0.0	0.0	N		0.0	04		1.3	0.8
FLASHER UNIT		100		0		0									09			1.3
510000																		
INSTRUMENT SYSTEM																		
510100																		
FLIGHT INDICATORS SUBSYSTEM																		
510101 67020 57W20 67020	68	958		037		730		14	0.0	0.0	0.0	Y	09	0.10	09		0.5	0.8
AIRSPEED		22		15		12												1.4

MUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
510102 VERTICAL CLIMB	67020	67W20	67020	36	127 64		958 27		374 9		0	0.0	0.0	0.0	N		0.0	09		0.5	0.6 1.0
510103 BAROMETRIC ALTIMETER	67020	67W20	67020	162	127 61		958 19		374 7		4	1.1	1.1	99.9	N		0.0	09		0.5	0.6 0.9
510104 RATE OF CLIMB	67020	67W20	67020	29	127 44		958 22		135 11		0	0.0	0.0	0.0	N		0.0	09 26		4.0	0.7 1.5
510105 DIRECTIONAL GYRO	67020	35K20	35K20	12	374 57		958 29		730 14		0	0.0	0.0	0.0	N		0.0	09		0.5	0.6 0.7
510106 TURN/SLIP	67020	35K20	35K20	26	127 25		374 25		958 25		0	0.0	0.0	0.0	N		0.0	09 26		4.0	0.6 0.8
510107 ATTITUDE INDICATOR	67020	35K20	35K20	183	374 33		958 27		037 6		4	2.8	3.1	66.7	N		0.0	08 09	26	4.0	0.8 1.1
510108 FLT DIRECTOR HOVER INDICATOR	67020	67W20	67020	22	374 39		242 28		106 11		0	0.0	0.0	0.0	N		0.0	09		0.5	0.9 1.2
510109 CRUISE GUIDE INDICATOR	67020	35K20	35K20	24	127 33		374 33		958 12		0	0.0	0.0	0.0	N		0.0	09		0.5	0.7 1.0
510200 MISC FLIGHT INSTRUMENTS SUBSYS																					
510201 AC VOLTMETER	67020	67W20	68F20	26	127 50		070 13		106 13		0	0.0	0.0	0.0	N		0.0	08 09	22	9.0	0.6 0.9
510202 DC VOLTMETER	67020	67W20	68F20	48	127 27		374 27		958 20		9	0.0	0.0	0.0	N		0.0	09 22		9.0	0.7 0.8
510203 DC LOADMETER	67020	67W20	68F20	49	374 30		958 30		450 10		5	0.0	0.0	0.0	N		0.0	09		0.5	0.7 0.8
510204 CLOCK	67020	67W20	67020	203	374 31		958 11		070 10		9	0.0	0.0	0.0	N		0.0	08 09	26	2.0	0.6 0.8
510205 OUTSIDE AIR TEMPERATURE	67020	67W20	67020	39	374 33		334 17		958 17		0	0.0	0.0	0.0	N		0.0	09		0.5	0.5 0.6
510206 MASTER CAUTION LIGHT	67020	67W20	68F20	90	958 25		901 18		080 14		10	7.7	8.3	0.0	Y	08	0.10	08		0.2	1.0 1.4
510207 MASTER FIRE WARNING LIGHT	67020	67W20	68F20	35	730 27		070 18		127 18		0	0.0	0.0	0.0	Y	08	0.10	08		0.2	1.1 2.4
510208 CAUTION LIGHT	67020	67W20	68F20	13	127 16		080 13		070 8		4	4.5	5.2	15.8	Y	08	0.05	08		0.2	0.8 1.0

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
510300 PITOT STATIC SUBSYSTEM																		
510301 67020 67W20 67020 PITOT HEAD	9	170 33		070 17		230 17		46	0.0	0.0	0.0	Y	07 09	0.30	07 09		4.0	1.1 1.2
510302 67020 67W20 67020 STATIC HEAD	5	070 33		135 33		230 33		0	0.0	0.0	0.0	Y	09	0.10	09		2.0	0.7 0.7
510303 67020 67W20 68F20 PITOT HEAT SWITCH	4	242 60		374 40		 0		29	0.0	0.0	0.0	Y	04	0.20	08		1.3	0.7 1.2
510304 67020 67W20 67020 LINE/HOSE	2	190 33		106 17		450 17		35	0.0	0.0	0.0	N		0.0	09		0.3	0.7 0.9
510305 67020 67W20 67020 DRAIN VALVE	9	381 73		020 9		106 9		13	0.0	0.0	0.0	N		0.0	09		3.0	1.0 1.8
510400 NAVIGATIONAL INDICATORS SUBSYS																		
510401 67020 67W20 67020 MAGNETIC COMPASS	119	080 28		374 22		127 14		27	0.0	0.0	0.0	N		0.0	08 09		0.5	0.8 1.0
51050C COMPASS SUBSYSTEM																		
510501 67020 35K20 35K20 RADIO MAGNETIC INDICATOR	40	374 22		958 22		080 11		6	0.0	0.0	0.0	N		0.0	08 09		0.5	0.8 0.9
510502 67020 35K20 35K20 COMPASS TRANSMITTER	23	374 29		070 14		127 14		0	0.0	0.0	0.0	N		0.0	08 09		0.8	1.3 1.5
510503 67020 35K20 35K20 AMPLIFIER	209	374 31		958 18		24[illegible] 7		15	0.0	0.0	0.0	N		0.0	08 09		1.0	1.1 1.5
510504 67020 35K20 35K20 DIRECTIONAL GYRO	245	374 45		958 20		037 7		2	2.7	3.0	99.9	N		0.0	08 09		1.0	1.0 1.2
510505 67020 35K20 35K20 CONTROLLER	18	127 40		374 20		958 20		32	0.0	0.0	0.0	N		0.0	08		0.8	1.0 1.7
510600 ENGINE INSTRUMENTS SUBSYSTEM																		
510601 67020 67W20 68F20 DUAL TACH INDICATOR	95	374 38		958 14		381 14		24	4.2	4.3	0.0	Y	09	0.10	09		0.5	0.8 0.9
510602 67020 67W20 68F20 TACH GENERATOR	112	374 26		958 17		381 12		4	6.0	8.2	0.0	N		0.0	09		1.0	0.8 0.9

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
510603 67G20 67W20 68F20 OIL TEMPERATURE INDICATOR	35	958 46		070 9		093 9		13	0.0	0.0	0.0	Y	09	0.10	09		0.5	0.7 0.7
510604 67020 67W20 68F20 OIL TEMPERATURE BULB	6	901 50		958 50		 0		0	0.0	0.0	0.0	N		0.0	09		0.8	0.5 0.5
510605 67020 67W20 68F20 OIL PRESSURE INDICATOR	81	374 24		135 16		127 12		11	4.4	5.3	0.0	Y	09	0.10	08 09		0.5	0.7 0.9
510606 67020 67W20 68F20 OIL PRESS TRANSMITTER	106	374 23		037 22		070 19		7	0.0	0.0	0.0	N		0.0	09		0.8	1.0 1.3
510607 67020 67W20 68F20 FUEL PRESSURE INDICATOR	59	374 28		037 17		730 17		23	0.0	0.0	0.0	Y	09	0.10	08 09		0.5	0.8 1.0
510608 67020 67W20 68F20 FUEL PRESSURE TRANSMITTER	229	374 35		958 13		070 9		6	1.5	2.0	0.0	N		0.0	09		0.8	1.2 1.4
510609 67020 67W20 68F20 TORQUE INDICATOR	123	092 26		958 21		374 16		7	2.8	3.1	0.0	Y	09	0.10	08 09		0.5	0.7 0.8
510610 67020 67W20 68F20 TORQUE SENSOR TRANSMITTER	16	127 39		037 17		374 17		10	0.0	0.0	0.0	N		0.0	09		0.8	1.5 2.1
510611 67020 67W20 68F20 EXHAUST GAS TEMP INDICATOR	164	127 44		958 24		037 8		11	2.2	3.1	0.0	Y	09	0.10	09 23		10.0	1.4 2.3
510612 67020 67W20 68F20 EXHAUST THERMOCOUPLE ASSY	16	070 20		108 20		127 20		28	C.0	0.0	0.0	N		0.0	09 23		10.0	2.1 2.3
510700 DRIVE SYS INSTRUMENTS SUBSYS																		
510701 67020 67W20 68F20 OIL PRESSURE INDICATOR	35	958 36		374 27		901 18		0	9.1	11.2	0.0	Y	09	0.10	08 09		0.5	1.0 1.2
510702 67020 67W20 68F20 OIL PRESSURE TRANSMITTER	39	381 17		958 17		037 8		23	10.0	11.1	0.0	N		0.0	09		0.8	0.8 0.9
510703 67020 67W20 68F20 OIL PRESSURE TRANSDUCER	22	070 35		374 15		615 6		9	0.0	0.0	0.0	N		0.0	09		0.8	0.9 1.0
510704 67020 67W20 68F20 TACH INDICATOR	65	958 30		127 30		374 20		0	10.0	10.6	50.0	Y	09	0.10	09		0.5	0.7 1.2
510705 67020 67W20 68F20 TACH GENERATOR	77	958 21		381 17		901 17		0	0.0	0.0	0.0	N		0.0	09		1.C	1.1 1.7
510706 67020 67W20 68F20 OIL TEMPERATURE INDICATOR	35	374 27		958 27		037 9		0	9.1	10.1	0.0	Y	09	0.10	09		0.5	0.7 1.3

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC MOS 1 MOS 2 MOS 3 NOMENCLATURE	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP ENT/ HRS
510707 67020 67W20 68F20 TEMP INDICATOR SELECT SWITCH	37	070 14		135 14		730 14		0	0.0	0.0	0.0	N		0.0	09		1.3	0.9 1.4
510708 67020 67W20 68F20 OIL TEMPERATURE BULB	13	037 25		135 25		374 25		0	0.0	0.0	0.0	N		0.0	09		0.8	0.6 0.7
510709 67020 67W20 68F20 THERMOSWITCH	10	070 33		169 33		242 33		0	0.0	0.0	0.0	N		0.0	09		0.8	2.6 4.6
510800 FUEL QUANTITY SUBSYSTEM																		
510801 67020 67W20 68F20 FUEL QUANTITY INDICATOR	161	958 26		127 26		374 24		31	0.0	0.0	0.0	Y	09	0.10	08 09		3.0	0.8 1.0
510802 67020 67W20 68F20 SELECTOR SWITCH	37	070 14		135 14		730 14		0	0.0	0.0	0.0	Y	04	0.10	08		1.3	0.9 1.4
510803 67020 67W20 68F20 FUEL QUANTITY TRANSMITTER	3	070 25		246 25		425 25		0	0.0	0.0	0.0	N		0.0	08		0.5	1.6 2.9
510804 67020 67W20 68F20 LOW LEVEL SWITCH	16	374 40		070 20		127 20		28	0.0	0.0	0.0	N		0.0	08		0.8	1.9 2.5
510900 HYDRAULIC INSTRUMENTS SUBSYS																		
510901 67020 67W20 68F20 BOOST PRESSURE INDICATOR	19	080 32		374 9		525 9		0	0.0	0.0	0.0	Y	09	0.10	08 09		0.5	0.6 0.7
510902 67020 67W20 68F20 UTILITY PRESSURE INDICATOR	200	525 32		037 14		135 8		27	11.1	20.1	30.1	Y	09	0.10	08 09		0.5	1.1 1.3
510903 67020 67W20 68F20 PRESSURE TRNSMITTER	242	374 21		381 13		958 13		0	8.0	9.9	50.0	N		0.0	08 09		0.8	0.7 0.9
511100 APP INSTRUMENTATION SUBSYSTEM																		
511101 67020 67W20 68F20 EGT INDICATOR	5	127 33		242 33		450 33		0	0.0	0.0	0.0	Y	09	0.10	09		0.5	2.3 3.6
511102 67020 67W20 68F20 TACHOMETER	11	037 33		255 33		135 17		0	0.0	0.0	0.0	Y	09	0.10	09		0.5	2.2 3.3
511103 67020 67W20 68F20 OIL PRESSURE INDICATOR	56	374 19		070 13		242 13		11	3.4	3.7	0.0	Y	09	0.10	09		0.5	0.7 0.9
910000 EMERGENCY EQUIP SYSTEM																		

WUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT PRB/ W/FR	ABT PRB/ NO FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	REP EMT/ HRS
910100																					
FIRE FIGHTING EQUIP SUBSYSTEM																					
910101	67020	67M20	67020	19	093		070		246		69	0.0	0.0	0.0	Y	09	0.10	09		1.5	0.5
PORTABLE FIRE BOTTLE					33		17		17												0.5
910102	67020	67M20	67020	15	070		780		931		40	0.0	0.0	0.0	Y	09	0.10	09		1.5	0.5
FIRE/CRASH AXE/KNIFE					50		25		25												0.5
910200																					
MEDICAL EQUIP SUBSYSTEM																					
910201	67020	67M20	67020	1	106						0	0.0	0.0	0.0	Y	09	0.10	09		1.5	0.7
FIRST AID KIT					100		0		0												0.7
910300																					
SURVIVAL EQUIP SUBSYSTEM																					
910301	67020	67M20	67020	1	086						177	0.0	0.0	0.0	Y	09	0.10	09		1.5	0.5
SURVIVAL KIT					100		0		0												0.5

APPENDIX V

CONFIGURATION FILE CODE LISTINGS

Failure Mode Codes Numerical Listing

CODE	DESCRIPTION
001	Gassy
003	Open Filament or Tube Circuit
004	Low GM or Emission
007	Arcing, Arced
008	Noisy
009	Microphonic
010	Poor or Incorrect Focus
020	Worn, Chafed or Frayed
028	Conductance Incorrect
029	Current Incorrect
037	Fluctuates, Unstable or Erratic
051	Fails to Tune or Drifts
064	Incorrect Modulation
065	High Voltage Standing Wave Ratio
069	Flame-Out
070	Broken
080	Burned Out or Defective Light Bulb
086	Improper Handling
088	Incorrect Gain
092	Mismatched - Wheel Halves, Electronic Parts, etc.
093	Missing Part
094	No Gain or Emission
103	Attack Display Malfunction
105	Loose or Damaged Bolts, Nuts, Screws, Rivets, Fasteners, Clamps or other Common Hardware
106	Missing Bolts, Nuts Screws, Rivets, Fasteners, Clamps or Other Common Hardware
108	Broken, Faulty or Missing Safety Wire or Key
111	Burst or Ruptured
116	Cut
117	Deteriorated
127	Adjustment or Alignment Improper
130	Change of Value
135	Binding, Stuck or Jammed
142	Engine Removed, Excessive Maintenance
150	Chattering
158	Launch Damage
160	Contact/Connection Defective
167	Torque Incorrect
169	Incorrect Voltage
170	Corroded
177	Fuel Flow Incorrect
181	Compression Low
190	Cracked
230	Dirty
242	Failed to Operate or Function - Specific Reason Unknown
246	Improper or Faulty Maintenance
253	Misfires
255	No Output
277	Fuel Nozzle Coking
279	Spray Pattern Defective
290	Fails Diagnostic Automatic Test

CONFIGURATION FILE CODE LISTINGS - Continued

Failure Mode Codes Numerical Listing (Continued)

CODE	DESCRIPTION	CODE	DESCRIPTION
301	Foreign Object Damage	450	Open
303	Bird Strike Damage	457	Oscillating
306	Contamination	458	Out of Balance
314	Slow Acceleration	464	Overspeed
315	RPM Fluctuation or Incorrect	472	Fuse Blown or Defective Circuit Protector
317	Hot Start	481	Keyway or Spline Damaged or Worn
330	Excessive Hum	503	Sudden Stop
334	Temperature Incorrect	520	Pitted
350	Insulation Breakdown	525	Pressure Incorrect
372	Metal on Magnetic Plug	537	Low Power or Thrust
374	Internal Failure	540	Punctured
380	Compressor or Turbine Wheel Damage - Reason Unknown	561	Unable to Adjust to Limits
381	Leaking - Internal or External	567	Resistance Incorrect
382	Liquid Lock	583	Scope Presentation Incorrect or Faulty
383	Lock-on Malfunction	585	Sheared
386	Maintenance Action Due to a Lost-in-Flight Occurrence	599	Travel or Extension Incorrect
396	Oil Breathing Excessive	601	Detonation
398	Oil Consumption Excessive	602	Failed, Damaged or Replaced Due to Malfunction of Associated Equipment or Item
410	Lack of, or Improper Lubrication	603	Oil in Induction System
424	External Power Source	604	Manifold Pressure Beyond Limits
425	Nicked	605	Crazed
437	Improperly Positioned or Selected	606	Drone or Drone Compound Not Recovered
447	Wrong Logic - Program or Computer	607	No-Go Indication - Specific Reason Unknown
		608	Counter Run Off-Position Indicator
		615	Shorted

CONFIGURATION FILE CODE LISTINGS - Continued

Failure Mode Codes Numerical Listing (Continued)

CODE	DESCRIPTION	CODE	DESCRIPTION
622	Wet	780	Bent, Buckled, Collapsed, Dented, Distorted or Twisted
649	Sweep Malfunction		
651	Air in System		
652	Automatic Align Time Excessive	781	Tire Leakage Excessive
653	Ground Speed Error Excessive	782	Tire Tread Area Defective - Use Cut, Delaminated, Punctured, Worn, etc.,if applicable
654	Terminal Error - CEP Excessive		
655	Terminal Error - Range Excessive	783	Tire Sidewall Damaged or Defective
656	Terminal Error - Azimuth Excessive	784	Tire Bead Area Damaged or Defective
660	Stripped	785	Tire Inside Surface Damaged or Defective
664	Tension Incorrect		
690	Vibration Excessive	786	Tire Blowout
692	Video Faulty	787	Tire Removed - Normal Wear
693	Audio Faulty		
694	Audio and Video Faulty	788	Tire Removed Due to Other Primary Cause, i.e., Brake or Wheel Failure, Hard Landing
695	Sync Absent or Incorrect		
697	Faulty Tape - Program or Checkout	799	No Defect
		800	No Defect - Component Removed and/or Reinstalled to Facilitate Other Maintenance
698	Faulty Card - Program or Checkout		
710	Bearing Failing or Faulty	801	No Defect - Removed for Modification
719	Broken or Frayed Bonding or Ground Wires	803	No Defect - Removed for Time Change
720	Brush Failure/Worn Excessively	804	No Defect - Removed for Scheduled Maintenance
730	Loose		
731	Battle Damage	806	No Defect - Removed as Part of a Matched System
748	Frequency Erratic or Incorrect		
758	Obsolete Surplus	816	Impedance Incorrect
770	Slip Ring or Commutator Failure	838	B Plus Incorrect
		846	Delaminated

CONFIGURATION FILE CODE LISTINGS - Continued

Failure Mode Codes Numerical Listing (Continued)

CODE	DESCRIPTION
877	Transportation Damage
878	Weather Damage
900	Burned or Overheated
901	Intermittent
910	Chipped
916	Impending or Incipient Failure Indicated by Spectrometric Oil Analysis
931	Accidental or Inadvertent Operation, Release or Activation
932	Does Not Engage Lock or Unlock Correctly
935	Scored or Scratched
937	Overheated Cathode Stem
938	Power Output Dip
947	Torn
955	Data Link High Error Rate
956	Abnormal Function of Computer Mechanical Equipment
957	No Display
958	Incorrect Display
959	Fails to Transfer to Redundant Equipment
961	High Anode Current
962	Low Power Electronic
963	Broken Filament/ Cathode Terminal
964	Poor Spectrum
966	RF Window Suck-in, Broken or Cracked
968	Dioding
969	Cannot Resonate Input Cavity
970	Coolant Leak
971	Cracked Cathode Bushing
972	Damaged Input Probe
973	Damaged Output Probe
974	Does Not Track Tuning Curve
975	Filament to Cathode Short
981	Frequency Instability
982	Frozen Tuning Mechanism
983	Grid to Cathode Short
984	Grid to Plate Short
985	High Body Current/ Beam Interruption
986	High Modulator Inverse
987	Input Pulse Distortion
988	Loss of Vacuum
989	Low Coolant Flow Rate
990	No Focus Current
991	Out-of-Band Frequency
992	Output Pulse Distortion
993	RF Drive Improper
994	RF Feed-Thru Attenuated/ Distorted
995	RF Feed-Thru Completely Interrupted
996	RF Terminal Overheated
997	RF Window Burned

CONFIGURATION FILE CODE LISTINGS - Continued

Inspection Methods Codes

1. BITE
2. BIM
3. Spectrographic Oil Analysis
4. Operational Visual Check
5. Operational Audio Check
6. Operational Vibratory Check
7. Operational Temperature Check
8. Functional Check
9. Static Visual Check
10. Manual Plan/Clearance Check
11. Precision Dimensional Check
12. Torque Check
13. Tension Check
14. Spring Rate Test
15. Vacuum Check
16. Pressure Test
17. Flow Rate Check
18. Optical Magnification Inspection
19. Dye Penetrant Inspection
20. Magnetic Particle Inspection
21. X-Ray Inspection
22. Elect/Avionic Check (Common Meters)
23. Elect/Avionic Check (Special Test Set)
24. Tap Test
25. Friction Check
26. Alignment Check
27. Time Check

APPENDIX VI

MASTER COMPONENT INSPECTION MIXES

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
110101	01 02	04 08	01 02	01 02	02 04	01 03	01 02
110102	01 02	01 02	01 02	01 02	01 02	01 02	01 02
110103	01 02	01 02	01 02	01 02	02 04	01 02	01 02
110104	01 02	04 08	02 04	04 08	02 04	01 02	01 05
110105	01 02	04 08	02 04	01 02	01 05	01 03	01 02
110106	01 02	04 08	02 04	04 08	01 05	01 03	01 05
110107	01 02	04 08	02 04	01 02	01 02	01 02	01 02
110108	01 02	04 08	01 02	01 02	01 02	01 02	01 02
110109	01 02	04 08	06 12	04 08	01 05	01 04	01 02
110110	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
110202	01 02	01 02	01 02	01 02	01 02	01 02	01 02
110203	01 02	04 08	02 04	04 08	02 04	01 07	04 12
110204	01 02	04 08	02 04	01 02	02 04	01 02	01 02
110205	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110301	01 02	04 08	01 02	01 02	02 04	01 03	01 02
110302	01 02	04 08	02 04	01 02	02 04	01 03	01 02
110303	01 02	04 08	02 04	04 08	02 04	01 03	01 05
110304	01 02	04 08	01 02	01 02	01 02	01 02	01 02
110305	01 02	04 08	02 04	04 08	01 05	01 07	01 05
110401	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110402	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110403	01 02	04 08	02 04	04 08	01 05	01 04	01 05
110404	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110501	01 02	04 08	02 04	01 02	02 04	01 03	01 02
110502	01 02	04 08	02 04	04 08	01 05	01 07	01 05
110503	01 02	04 08	02 04	04 08	01 05	01 04	01 05
110601	01 02	04 08	02 04	04 08	01 05	01 07	01 05
110602	01 02	04 08	02 04	01 02	02 04	01 03	01 02
110603	01 02	04 08	02 04	04 08	02 04	01 03	01 05
110604	01 02	04 08	02 04	04 08	01 09	01 07	01 05
110605	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110606	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120101	01 02	04 08	02 04	04 08	02 04	01 04	04 12
120102	01 02	04 08	02 04	01 02	02 04	01 03	01 02
120103	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120104	01 02	01 02	01 02	01 02	02 04	01 02	01 02
120105	01 02	04 08	06 12	04 08	01 05	01 04	01 05
120106	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120107	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120108	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120109	01 02	04 08	06 12	04 08	01 05	01 04	01 05
120110	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120111	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120112	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120201	01 02	04 08	02 04	04 08	02 04	01 04	01 05
120202	01 02	04 08	06 12	04 08	02 04	01 04	01 05
120203	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120204	01 02	04 08	02 04	04 08	01 05	01 07	01 05
120301	01 02	04 08	02 04	04 08	01 09	01 07	04 12

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
120302	01 02	01 02	01 02	01 02	02 04	01 02	01 02
120401	01 02	04 08	02 04	04 08	02 04	01 03	01 05
120402	01 02	04 08	02 04	04 08	02 04	01 03	01 05
130101	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130102	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130103	01 02	04 08	01 02	01 [illegible]	02 04	01 03	01 02
130104	01 02	04 08	02 04	04 08	02 04	01 03	01 05
130105	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130202	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130203	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130204	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130205	01 02	04 08	01 02	01 02	02 04	01 03	01 02
130207	01 02	04 08	02 04	04 08	01 05	01 02	01 05
130301	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130302	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130303	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130304	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130305	01 02	04 08	02 04	04 08	01 09	01 07	04 12
130306	01 02	04 08	02 04	04 08	01 09	01 07	04 12
130401	01 02	04 08	02 04	04 08	02 04	01 07	04 12
130402	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130403	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130501	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130502	01 02	01 02	01 02	01 02	02 04	01 03	01 02
130503	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140101	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140102	01 02	04 08	02 04	04 08	01 02	01 02	01 05
140103	01 02	01 02	01 02	01 02	01 05	01 07	04 12
140104	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140105	01 02	01 02	01 02	01 02	02 04	01 02	01 02
140106	01 02	04 08	02 04	04 08	02 04	01 02	01 05
140107	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140108	01 02	04 08	02 04	04 08	01 09	01 07	04 12
140109	01 02	04 08	02 04	01 02	02 04	01 04	01 02
140201	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140202	01 02	04 08	02 04	04 08	01 02	01 02	01 05
140203	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140204	01 02	01 02	01 02	01 02	01 05	01 03	01 02
140205	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140206	01 02	01 02	01 02	01 02	02 04	01 02	01 02
140207	01 02	04 08	02 04	04 08	02 04	01 02	01 05
140208	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140209	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140210	01 02	04 08	06 12	04 08	02 04	01 04	01 05
140301	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140401	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140403	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140404	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140405	01 02	04 08	02 04	04 08	02 04	01 07	04 12

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
140406	01 02	04 08	02 04	01 02	01 02	01 02	01 02
140501	01 02	04 08	02 04	04 08	02 04	01 07	04 12
140502	01 02	04 08	02 04	04 08	02 04	01 03	01 05
140503	01 02	04 08	02 04	04 08	02 04	01 07	04 12
140504	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140505	01 02	01 02	01 02	01 02	02 04	01 02	01 02
140506	01 02	04 08	02 04	01 02	02 04	01 02	01 02
140507	01 02	04 08	02 04	04 08	02 04	01 03	01 05
140508	01 02	04 08	02 04	04 08	01 05	01 04	01 05
140509	01 02	04 08	06 12	04 08	01 05	01 04	01 05
140510	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140511	01 02	04 08	02 04	04 08	01 05	01 04	01 05
140512	01 02	04 08	01 02	01 02	02 04	01 02	01 02
140601	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140602	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140701	01 02	04 08	02 04	01 02	02 04	01 04	01 02
140702	01 02	01 02	01 02	01 02	02 04	01 03	01 02
140703	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140801	01 02	04 08	02 04	04 08	01 02	01 02	01 05
140802	01 02	04 08	02 04	04 08	01 09	01 07	04 12
140803	01 02	04 08	02 04	04 08	01 02	01 02	01 05
150101	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150102	01 02	04 08	02 04	04 08	02 04	01 03	01 05
150103	01 02	01 02	01 02	01 02	02 04	01 02	01 02
150104	01 02	01 02	01 02	01 02	02 04	01 07	04 12
150105	01 02	01 02	01 02	01 02	02 04	01 07	04 12
150106	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150107	01 02	04 08	02 04	04 08	03 11	01 07	04 12
150108	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150109	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150111	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150112	01 02	04 08	02 04	04 08	03 11	01 07	04 12
150113	01 02	04 08	02 04	04 08	01 05	01 04	01 05
150114	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150115	01 02	04 08	01 02	01 02	02 04	01 03	01 02
150116	01 02	04 08	02 04	01 02	01 02	01 03	01 02
150117	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150118	01 02	04 08	02 04	01 02	01 02	01 02	01 02
150119	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150120	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150121	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150122	01 02	04 08	02 04	01 02	01 02	01 02	01 02
150123	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150202	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150203	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150204	01 02	01 02	01 02	01 02	01 02	01 07	04 12
220101	01 02	04 08	02 04	04 08	01 02	01 02	01 05
220201	01 02	04 08	06 12	04 08	01 05	01 04	01 02
220202	01 02	04 08	02 04	04 08	03 11	01 07	04 12

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 6
220203	01 02	04 08	02 04	04 08	03 11	01 07	04 12
220204	01 02	04 08	02 04	01 02	02 04	01 03	01 02
220301	01 02	04 08	02 04	04 08	01 02	01 02	01 05
220302	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220303	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220305	01 02	04 08	02 04	04 08	01 02	01 02	01 05
220306	01 02	04 08	02 04	04 08	01 05	01 04	01 05
220307	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220308	01 02	04 08	02 04	01 02	02 04	01 03	01 02
220309	01 02	04 08	01 02	01 02	02 04	01 03	01 02
220310	01 02	04 08	02 04	04 08	02 04	01 03	04 12
220311	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220401	01 02	04 08	01 02	01 02	02 04	01 03	01 02
220402	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220403	01 02	04 08	02 04	04 08	02 04	01 03	01 02
220404	01 02	04 08	06 12	04 08	01 05	01 04	01 05
220405	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220501	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220502	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220503	01 02	01 02	01 02	01 02	02 04	01 02	01 02
220601	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220602	01 02	04 08	02 04	04 08	03 11	02 08	04 12
220603	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220701	01 02	04 08	02 04	04 08	03 11	02 08	04 12
220702	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220703	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220704	01 02	04 08	02 04	04 08	02 04	01 04	01 05
240101	01 02	04 08	02 04	01 02	02 04	01 03	01 02
240201	01 02	04 08	02 04	01 02	01 02	01 02	01 02
240202	01 02	04 08	02 04	01 02	01 02	01 02	01 02
240204	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240301	01 02	01 02	01 02	01 02	02 04	01 02	01 02
240302	01 02	04 08	02 04	04 08	02 04	01 03	04 12
240303	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240304	01 02	01 02	01 02	01 02	02 04	01 03	01 02
240305	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240306	01 02	04 08	02 04	04 08	01 05	01 04	01 05
240307	01 02	04 08	02 04	04 08	01 05	01 04	01 05
240308	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240401	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240402	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240403	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240404	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240501	01 02	04 08	02 04	04 08	01 05	01 04	01 05
240502	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240503	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240601	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240602	01 02	04 08	02 04	04 08	02 04	01 04	01 05
240603	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240604	01 02	04 08	02 04	04 08	02 04	01 03	04 12

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
240701	01 02	01 02	01 02	01 02	01 02	01 02	01 02
240702	01 02	04 08	02 04	04 08	02 04	02 05	02 06
240703	01 02	01 02	01 02	01 02	01 02	01 02	01 02
240704	01 02	04 08	01 02	01 02	02 04	01 03	01 02
240705	01 02	04 08	02 04	01 02	02 04	02 05	01 02
240801	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240802	01 02	04 08	02 04	04 08	01 05	02 05	02 06
240901	01 02	04 08	02 04	04 08	01 05	02 05	02 06
240902	01 02	04 08	02 04	04 08	01 05	02 08	04 12
260101	01 02	04 08	01 02	01 02	01 02	01 02	01 02
260102	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260103	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260104	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260105	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260106	01 02	04 08	06 12	04 08	01 05	02 08	02 06
260107	01 02	04 08	01 02	01 02	02 04	01 02	01 02
260201	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260202	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260203	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260204	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260205	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260206	01 02	04 08	06 12	04 08	01 05	02 08	02 06
260301	01 02	01 02	01 02	01 02	02 04	01 02	01 02
260302	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260401	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260402	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260403	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260501	01 02	04 08	02 04	04 08	01 02	01 02	02 06
260502	01 02	04 08	02 04	04 08	01 02	01 02	04 12
260503	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260601	01 02	04 08	02 04	04 08	03 11	02 08	04 12
260602	01 02	01 02	01 02	01 02	02 04	01 02	01 02
260603	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260604	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260605	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260606	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260607	01 02	01 02	01 02	01 02	02 04	01 02	01 02
260608	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260701	01 02	04 08	02 04	04 08	02 04	02 04	02 06
260702	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260703	01 02	04 08	02 04	04 08	01 05	02 08	04 12
260704	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260705	01 02	04 08	02 04	04 08	02 04	02 04	04 12
260706	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260707	01 02	04 08	02 04	04 08	02 04	02 05	02 06
260801	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260802	01 02	04 08	01 02	01 02	02 04	02 04	01 02
260803	01 02	04 08	01 02	01 02	02 04	02 04	01 02
260804	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260901	01 02	01 02	01 02	01 02	01 02	01 02	01 02

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
260902	01 02	04 08	02 04	04 08	03 11	02 08	04 12
260903	01 02	04 08	02 04	01 02	02 04	02 04	01 02
260904	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260905	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260906	01 02	04 08	02 04	04 08	01 02	01 02	02 06
260907	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290101	01 02	04 08	01 02	01 02	02 04	02 04	01 02
290102	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290103	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290202	01 02	01 02	01 02	01 02	02 04	01 02	01 02
290203	01 02	01 02	01 02	01 02	02 04	01 02	01 02
290204	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290205	01 02	04 08	01 02	01 02	02 04	02 04	01 02
290206	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290207	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290208	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290301	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290302	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290303	01 02	04 08	02 04	04 08	02 04	02 08	04 12
290401	01 02	04 08	02 04	04 08	02 04	02 05	02 06
290402	01 02	04 08	02 04	04 08	02 04	02 04	02 06
290403	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290501	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290502	01 02	04 08	02 04	04 08	02 04	02 05	02 06
290601	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290602	01 02	04 08	02 04	04 08	01 05	02 08	02 06
290603	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290604	01 02	04 08	02 04	04 08	01 05	02 08	04 12
290701	01 02	04 08	02 04	04 08	03 07	02 05	02 06
290702	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290703	01 02	04 08	02 04	04 08	02 04	02 08	04 12
290704	01 02	04 08	02 04	04 08	01 02	01 02	02 06
290705	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290706	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290707	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290801	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290802	01 02	01 02	01 02	01 02	02 04	01 02	01 02
290803	01 02	01 02	01 02	01 02	03 07	02 08	04 12
290804	01 02	01 02	01 02	01 02	03 07	02 04	01 02
290805	01 02	01 02	01 02	01 02	02 04	02 04	01 02
290806	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290807	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290808	01 02	04 08	06 12	04 08	02 04	02 05	02 06
290809	01 02	04 08	02 04	04 08	01 02	01 02	02 06
290810	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290811	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290812	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290901	01 02	04 08	02 04	04 08	01 02	01 02	02 06
290902	01 02	04 08	02 04	04 08	01 02	01 02	02 06

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
290903	01 02	04 08	02 04	04 08	01 02	01 02	02 06
291001	01 02	04 08	02 04	04 08	02 04	04 10	08 16
291002	01 02	04 08	02 04	01 02	02 04	02 04	01 02
291003	01 02	04 08	02 04	01 02	03 07	04 10	01 02
291004	01 02	04 08	01 02	01 02	02 04	02 04	01 02
291005	01 02	04 08	02 04	04 08	02 04	04 10	08 16
291006	01 02	04 08	02 04	04 08	03 11	04 10	08 16
291007	01 02	04 08	02 04	04 08	02 04	02 05	02 06
410101	01 02	04 08	02 04	04 08	05 13	04 10	08 16
410102	01 02	04 08	02 04	04 08	05 13	04 10	02 06
410103	01 02	04 08	02 04	04 08	05 13	04 10	08 16
410104	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420101	01 02	01 02	01 02	01 02	01 02	01 02	08 16
420102	01 02	04 08	02 04	04 08	02 04	01 02	02 06
420103	01 02	04 08	02 04	01 02	03 07	04 10	08 16
420104	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420105	01 02	04 08	02 04	01 02	03 07	04 10	01 02
420106	01 02	04 08	02 04	04 08	02 04	04 10	08 16
420107	01 02	04 08	02 04	04 08	03 07	03 06	02 06
420108	01 02	01 02	01 02	01 02	02 04	01 02	01 02
420109	01 02	04 08	01 02	01 02	02 04	02 04	01 02
420201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
420202	01 02	04 08	02 04	04 08	02 04	01 02	08 16
420203	01 02	04 08	02 04	01 02	03 07	02 04	01 02
420204	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420205	01 02	04 08	02 04	01 02	02 04	02 04	01 02
420206	01 02	01 02	01 02	01 02	01 02	01 02	01 02
420207	01 02	04 08	02 04	01 02	01 02	01 02	01 02
420301	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420302	01 02	04 08	02 04	04 08	01 02	01 02	01 02
440101	01 02	04 08	02 04	04 08	02 04	02 04	08 16
440102	01 02	04 08	02 04	04 08	02 04	02 04	08 16
440103	01 02	01 02	01 02	01 02	02 04	02 04	01 02
440201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
440202	01 02	01 02	01 02	01 02	01 02	02 04	01 02
440203	01 02	04 08	02 04	01 02	02 04	02 04	01 02
440204	01 02	04 08	02 04	04 08	01 02	01 02	02 06
440205	01 02	04 08	02 04	01 02	02 04	02 04	01 02
440206	01 02	04 08	02 04	04 08	05 13	02 04	08 16
450101	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450102	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450103	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450104	01 02	04 08	02 04	01 02	02 04	01 02	01 02
450105	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450106	01 02	04 08	02 04	04 08	05 13	04 10	08 16
450107	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450108	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450109	01 02	04 08	06 12	04 08	03 07	03 06	02 06
450110	01 02	01 02	01 02	01 02	02 04	02 04	08 16
450111	01 02	01 02	01 02	01 02	01 02	01 02	01 02

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
450112	01 02	04 08	02 04	04 08	02 04	03 06	02 06
450201	01 02	04 08	02 04	04 08	02 04	04 10	08 16
450202	01 02	04 08	02 04	04 08	02 04	02 05	02 06
450203	01 02	04 08	02 04	04 08	01 02	04 10	08 16
450204	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450206	01 02	04 08	02 04	04 08	02 04	02 05	02 06
450207	01 02	04 08	02 04	01 02	02 04	02 04	01 02
450208	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450301	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450401	01 02	04 08	01 02	01 02	02 04	02 04	01 02
450402	01 02	04 08	02 04	04 08	05 13	04 10	08 16
450403	01 02	04 08	02 04	04 08	02 04	04 10	08 16
450404	01 02	01 02	01 02	01 02	02 04	01 02	01 02
450405	01 02	04 08	01 02	01 02	02 04	02 04	01 02
460101	01 02	04 08	02 04	04 08	02 04	02 04	03 07
460102	01 02	01 02	01 02	01 02	02 04	02 04	01 02
460103	01 02	01 02	01 02	01 02	02 04	02 04	01 02
460104	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460105	01 02	04 08	02 04	04 08	05 13	04 10	08 16
460106	01 02	04 08	02 04	04 08	02 04	03 06	03 07
460108	01 02	04 08	02 04	04 08	05 13	04 10	08 16
460109	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460110	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460201	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460202	01 02	04 08	02 04	04 08	05 13	04 10	08 16
460203	01 02	04 08	02 04	04 08	02 04	04 10	08 16
460204	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490101	01 02	04 08	02 04	04 08	03 07	04 10	03 07
490102	01 02	04 08	02 04	04 08	03 07	04 10	08 16
490103	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490104	01 02	04 08	02 04	04 08	03 07	02 04	03 07
490201	01 02	04 08	02 04	04 08	03 07	04 10	03 07
490202	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490203	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490204	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490301	01 02	04 08	02 04	04 08	03 07	04 10	08 16
490302	01 02	04 08	02 04	04 08	03 07	05 11	03 07
490303	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490304	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490305	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490306	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490307	01 02	04 08	06 12	04 08	03 07	04 10	03 07
490401	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490402	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490501	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490502	01 02	04 08	02 04	04 08	03 07	04 10	08 16
490503	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490504	01 02	04 08	01 02	01 02	02 04	02 04	01 02
490601	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490602	01 02	04 08	02 04	04 08	02 04	04 10	08 16

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
490603	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490604	01 02	01 02	01 02	01 02	02 04	01 02	01 02
490605	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490606	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490607	01 02	04 08	02 04	04 08	01 02	01 02	03 07
490608	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490609	01 02	01 02	01 02	01 02	01 02	01 02	01 02
490610	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490611	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490612	01 02	04 08	02 04	04 08	02 04	04 10	08 16
490613	01 02	04 08	02 04	04 08	03 05	04 10	03 07
490614	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490615	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490701	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490702	01 02	01 02	01 02	01 02	02 04	01 02	01 02
490703	01 02	04 08	02 04	04 08	03 07	04 10	03 07
490704	01 02	04 08	02 04	01 02	07 15	02 04	01 02
490705	01 02	04 08	02 04	04 08	07 15	05 11	08 16
490706	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490801	01 02	04 08	02 04	04 08	07 15	05 11	08 16
490802	01 02	04 08	02 04	04 08	07 15	05 11	08 16
490803	01 02	04 08	02 04	04 08	03 07	05 11	03 07
490901	01 02	04 08	01 02	01 02	02 04	02 04	01 02
490902	01 02	04 08	02 04	04 08	02 04	02 04	03 07
491001	01 02	04 08	02 04	04 08	07 15	05 11	08 16
491002	01 02	04 08	02 04	04 08	02 04	02 04	03 07
491003	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510101	01 02	04 08	01 02	01 02	02 04	02 04	01 02
510102	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510103	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510104	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510105	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510106	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510107	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510108	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510109	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510201	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510202	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510203	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510204	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510205	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510206	01 02	01 02	01 02	01 02	02 04	01 02	01 02
510207	01 02	01 02	01 02	01 02	02 04	05 11	08 16
510208	01 02	01 02	01 02	01 02	02 04	02 04	08 16
510301	01 02	04 08	02 04	04 08	03 07	02 04	03 07
510302	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510303	01 02	04 08	02 04	04 08	03 07	02 04	03 07
510304	01 02	04 08	02 04	04 08	03 07	05 11	08 16
510305	01 02	04 08	02 04	04 08	03 07	03 06	03 07
510401	01 02	01 02	01 02	01 02	02 04	01 02	01 02

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
510501	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510502	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510503	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510504	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510505	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510601	01 02	01 02	01 02	01 02	02 04	01 02	01 02
510602	01 02	04 08	02 04	04 08	02 04	01 02	03 07
510603	01 02	04 08	02 04	01 02	02 04	02 04	01 02
510604	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510605	01 02	01 02	01 02	01 02	02 04	01 02	01 02
510606	01 02	04 08	02 04	04 08	02 04	01 02	03 07
510607	01 02	04 08	01 02	01 02	02 04	02 04	01 02
510608	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510609	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510610	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510611	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510612	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510701	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510702	01 02	04 08	02 04	01 02	02 04	02 04	01 02
510703	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510704	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510705	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510706	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510707	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510708	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510709	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510801	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510802	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510803	01 02	04 08	02 04	04 08	03 07	05 11	08 16
510804	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510901	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510902	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510903	01 02	04 08	02 04	04 08	01 02	01 02	03 07
511101	01 02	04 08	02 04	04 08	07 15	05 11	08 16
511102	01 02	04 08	02 04	04 08	07 15	05 11	08 16
511103	01 02	04 08	01 02	01 02	02 04	02 04	01 02
910101	01 02	04 08	02 04	04 08	02 04	02 04	03 07
910102	01 02	04 08	02 04	04 08	02 04	02 04	03 07
910201	01 02	04 08	02 04	04 08	07 15	05 11	08 16
910301	01 02	04 08	06 12	04 08	03 07	05 11	03 07

APPENDIX VII

FLIGHT-READINESS INSPECTION MIX

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
110101			
110102	1		1
110103	1		1
110104	1		1
110105			1
110106			
110107	1		1
110108	1		1
110109			
110110	1		1
110201	1		1
110202	1		1
110203			
110204	1		1
110205			
110301	1		1
110302	1		1
110303	1		1
110304	1		1
110305	1		1
110401			
110402			
110403			1
110404			
110501			
110502			
110503			
110601			1
110602			
110603			
110604			
110605			
110606			
120101			
120102			
120103			
120104			
120105			
120106	1		1
120107	1		1
120108			
120109			
120110			
120111			
120112			
120201			
120202	1		1
120203			
120204			
120301			1

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
120302			1
120401			
120402			
130101		1	1
130102		1	1
130103			1
130104	1		1
130105			
130201	1		1
130202			1
130203			1
130204			1
130205			1
130207		1	1
130301			1
130302			1
130303			
130304			
130305			
130306			
130401			
130402			
130403			1
130501			
130502		1	1
130503			
140101			1
140102			
140103			
140104	1		1
140105	1		1
140106			
140107			
140108			
140109			
140201			1
140202			
140203			
140204			
140205	1		1
140206	1		1
140207			
140208			
140209			
140210			
140301	1		1
140401	1		1
140403	1		1
140404	1		1
140405			

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
140406	1		1
140501			
140502			
140503			
140504	1		1
140505	1		1
140506			
140507			
140508			
140509			
140510	1		1
140511			
140512			1
140601	1		1
140602	1		1
140701	1		1
140702	1		1
140703			
140801			
140802			
140803			
150101	1		1
150102			1
150103			1
150104			1
150105			1
150106	1		1
150107			
150108	1		1
150109	1		1
150111			1
150112			1
150113	1		1
150114	1		1
150115	1		1
150116	1		1
150117	1		1
150118			
150119			
150120			
150121			
150122	1		1
150123	1		1
150201	1		1
150202	1		1
150203	1		1
150204	1		1
220101		1	1
220201			
220202			

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
220203			
220204			
220301			
220302			
220303			
220305			
220306			
220307		1	1
220308			
220309		1	1
220310		1	1
220311		1	1
220401		1	1
220402			
220403		1	1
220404		1	1
220405		1	1
220501			
220502			
220503			
220601			
220602			
220603			
220701			
220702			
220703			
220704			
240101		1	1
240201	1		1
240202	1		1
240204			
240301			
240302			
240303			
240304			
240305	1		1
240306			
240307			
240308		1	1
240401		1	1
240402		1	1
240403			
240404		1	1
240501			
240502			
240503			
240601			
240602			
240603			
240604			

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
240701			1
240702			
240703		1	1
240704			
240705		1	1
240801			
240802			
240901			
240902			
260101			1
260102			1
260103			1
260104			1
260105			1
260106			
260107			1
260201			1
260202			1
260203			1
260204			1
260205			1
260206			
260301			1
260302			
260401			1
260402			1
260403			
260501			
260502			
260503			1
260601	1		1
260602	1		1
260603	1		1
260604	1		1
260605	1		1
260606	1		1
260607	1		1
260608	1		1
260701		1	1
260702			1
260703			
260704		1	1
260705			1
260706		1	1
260707			
260801	1		1
260802	1		1
260803	1		1
260804			
260901			1

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
260902			
260903			1
260904			
260905			
260906			
260907			
290101			1
290102			1
290103			1
290201	1		1
290202			
290203			
290204			
290205			
290206			
290207			
290208	1		1
290301	1		1
290302	1		1
290303		1	1
290401		1	1
290402			
290403			
290501			
290502		1	1
290601			
290602			
290603			
290604			
290701			
290702			
290703			
290704			
290705			1
290706			
290707			1
290801			1
290802			
290803			1
290804	1		1
290805	1		1
290806			
290807	1		1
290808			
290809			
290810			
290811			
290812			
290901			
290902			

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
290903			
291001		1	1
291002			1
291003			
291004			1
291005			
291006			
291007		1	1
410101			
410102			
410103			
410104			
420101			
420102			
420103			
420104			
420105			
420106			
420107			
420108			
420109			
420201			
420202			
420203			
420204			
420205			
420206	1		1
420207			1
420301			
420302			
440101	1		1
440102	1		1
440103	1		1
440201	1		1
440202	1		1
440203	1		1
440204	1		1
440205			
440206	1		1
450101		1	1
450102			1
450103			1
450104		1	1
450105		1	1
450106			
450107			
450108			
450109			
450110			
450111			

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
450112		1	1
450201		1	1
450202		1	1
450203			
450204	1		1
450206			
450207			
450208			
450301			
450401			1
450402			
450403			
450404			1
450405			
460101			
460102			
460103		1	1
460104		1	1
460105			
460106		1	1
460108			
460109			
460110	1		
460201			
460202			
460203			
460204		1	1
490101			1
490102			
490103			
490104			
490201			
490202			
490203			
490204			
490301			
490302			
490303			
490304			
490305			
490306			
490307			
490401			
490402			
490501			
490502			
490503			
490504			
490601			1
490602	1		1

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
490603			
490604			
490605			
490606			
490607	1		1
490608	1		1
490609	1		1
490610			
490611		1	1
490612			
490613			
490614			
490615			
490701			
490702			
490703			
490704			
490705			
490706			1
490801			
490802			
490803			
490901			
490902			
491001			
491002			
491003			
510101			1
510102			
510103			
510104			
510105			
510106			
510107			
510108			
510109			
510201			
510202			
510203			
510204			
510205			
510206			
510207			
510208			
510301	1		1
510302	1		1
510303			1
510304			
510305			
510401			

COMPONENT CODE	PRE-FLT	POST-FLT	DAILY
510501			
510502			
510503			
510504			
510505			
510601			1
510602			
510603			1
510604			
510605			1
510606			
510607			1
510608			
510609			1
510610			
510611			1
510612			
510701			1
510702			
510703			
510704			1
510705			
510706			1
510707			
510708			
510709			
510801			1
510802			1
510803			
510804			
510901			1
510902			1
510903			
511101			1
511102			1
511103			1
910101			
910102			
910201			
910301			

APPENDIX VIII

MODEL OPTION C OUTPUTS

INSPECTION SCHEME SUMMARY MATRIX

INSP SCHEME - 1

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.990	0.990	0.991	0.978
Mission Reliability	0.967	0.960	0.964	0.964	0.912
Availability	0.945	0.929	0.934	0.913	0.918
Norm - Scheduled	0.026	0.028	0.025	0.031	0.027
Norm - Unscheduled	0.031	0.044	0.043	0.057	0.057
MH/FH - Flt-Readiness Insp	0.309	0.448	0.527	1.196	1.085
MH/FH - Scheduled - Look	0.453	0.605	0.567	1.084	1.115
MH/FH - Scheduled - Fix	0.206	0.279	0.331	0.587	0.588
MH/FH - Unscheduled Maintenance	0.526	0.662	0.732	1.227	1.425
MH/FH - Total	1.491	1.993	2.156	4.093	4.211
Unscheduled MTBM	4.6	3.7	3.4	2.2	1.8
	********************************				
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 2

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.988	0.988	0.973
Mission Reliability	0.958	0.949	0.953	0.954	0.891
Availability	0.951	0.932	0.934	0.913	0.917
Norm - Scheduled	0.010	0.011	0.009	0.011	0.010
Norm - Unscheduled	0.041	0.059	0.058	0.078	0.075
MH/FH - Flt-Readiness Insp	0.315	0.458	0.537	1.216	1.104
MH/FH - Scheduled - Look	0.170	0.227	0.211	0.396	0.413
MH/FH - Scheduled - Fix	0.069	0.093	0.110	0.198	0.196
MH/FH - Unscheduled Maintenance	0.679	0.871	0.977	1.659	1.860
MH/FH - Total	1.230	1.647	1.833	3.468	3.571
Unscheduled MTBM	3.6	2.9	2.6	1.7	1.4

****

	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 3

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.990	0.988	0.988	0.988	0.972
Mission Reliability	0.957	0.947	0.951	0.952	0.887
Availability	0.952	0.933	0.934	0.912	0.916
Norm - Scheduled	0.007	0.007	0.006	0.007	0.007
Norm - Unscheduled	0.043	0.062	0.061	0.082	0.078
MH/FH - Flt-Readiness Insp	0.316	0.460	0.539	1.220	1.108
MH/FH - Scheduled - Look	0.113	0.151	0.139	0.259	0.272
MH/FH - Scheduled - Fix	0.041	0.056	0.066	0.119	0.118
MH/FH - Unscheduled Maintenance	0.709	0.913	1.025	1.747	1.947
MH/FH - Total	1.178	1.578	1.769	3.343	3.443
Unscheduled MTBM	3.5	2.7	2.4	1.6	1.4

****

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 4

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.990	0.978
Mission Reliability	0.963	0.954	0.959	0.961	0.912
Availability	0.947	0.931	0.934	0.913	0.918
Norm - Scheduled	0.019	0.018	0.018	0.026	0.027
Norm - Unscheduled	0.035	0.052	0.049	0.062	0.057
MH/FH - Flt-Readiness Insp	0.311	0.453	0.532	1.201	1.085
MH/FH - Scheduled - Look	0.331	0.392	0.415	0.912	1.115
MH/FH - Scheduled - Fix	0.147	0.175	0.235	0.491	0.588
MH/FH - Unscheduled Maintenance	0.592	0.780	0.838	1.333	1.425
MH/FH - Total	1.379	1.798	2.018	3.937	4.211
Unscheduled MTBM	4.1	3.2	3.0	2.1	1.8

****

	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 5

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.989	0.989	0.976
Mission Reliability	0.960	0.951	0.955	0.957	0.901
Availability	0.950	0.932	0.934	0.913	0.917
Norm - Scheduled	0.013	0.013	0.013	0.018	0.018
Norm - Unscheduled	0.039	0.057	0.055	0.071	0.066
MH/FH - Flt-Readiness Insp	0.314	0.456	0.535	1.210	1.095
MH/FH - Scheduled - Look	0.230	0.274	0.287	0.626	0.764
MH/FH - Scheduled - Fix	0.098	0.116	0.157	0.331	0.390
MH/FH - Unscheduled Maintenance	0.646	0.845	0.925	1.511	1.645
MH/FH - Total	1.286	1.690	1.902	3.676	3.892
Unscheduled MTBM	3.8	2.9	2.7	1.9	1.6

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 6

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.988	0.989	0.975
Mission Reliability	0.959	0.949	0.954	0.955	0.896
Availability	0.951	0.932	0.934	0.913	0.917
Norm - Scheduled	0.010	0.010	0.010	0.014	0.014
Norm - Unscheduled	0.040	0.059	0.057	0.075	0.070
MH/FH - Flt-Readiness Insp	0.315	0.458	0.537	1.214	1.099
MH/FH - Scheduled - Look	0.180	0.215	0.224	0.482	0.588
MH/FH - Scheduled - Fix	0.074	0.087	0.118	0.249	0.294
MH/FH - Unscheduled Maintenance	0.673	0.877	0.968	1.602	1.750
MH/FH - Total	1.240	1.636	1.845	3.545	3.731
Unscheduled MTBM	3.6	2.8	2.6	1.8	1.5
	******************************				
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.4
Look Phase Sched Insp Crew (Int)	2.0	2.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 7

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.995	0.994	0.994	0.994	0.984
Mission Reliability	0.979	0.976	0.977	0.978	0.943
Availability	0.922	0.918	0.924	0.905	0.909
Norm - Scheduled	0.059	0.056	0.049	0.065	0.056
Norm - Unscheduled	0.019	0.023	0.027	0.030	0.035
MH/FH - Flt-Readiness Insp	0.296	0.431	0.510	1.161	1.051
MH/FH - Scheduled - Look	0.759	1.025	0.995	1.743	1.794
MH/FH - Scheduled - Fix	0.382	0.530	0.569	1.112	1.077
MH/FH - Unscheduled Maintenance	0.331	0.388	0.470	0.640	0.878
MH/FH - Total	1.768	2.375	2.545	4.656	4.801
Unscheduled MTBM	7.0	5.9	4.9	3.7	2.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 8

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.993	0.992	0.982
Mission Reliability	0.975	0.970	0.974	0.972	0.931
Availability	0.930	0.923	0.931	0.902	0.909
Norm - Scheduled	0.049	0.047	0.042	0.058	0.050
Norm - Unscheduled	0.022	0.030	0.027	0.040	0.042
MH/FH - Flt-Readiness Insp	0.303	0.441	0.519	1.183	1.071
MH/FH - Scheduled - Look	0.550	0.775	0.754	1.369	1.397
MH/FH - Scheduled - Fix	0.339	0.458	0.555	0.906	0.917
MH/FH - Unscheduled Maintenance	0.382	0.467	0.493	0.870	1.063
MH/FH - Total	1.574	2.141	2.321	4.328	4.448
Unscheduled MTBM	6.1	4.9	4.7	2.9	2.3

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 9

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.993	0.992	0.982
Mission Reliability	0.975	0.970	0.973	0.972	0.931
Availability	0.935	0.927	0.934	0.908	0.912
Norm - Scheduled	0.043	0.043	0.038	0.053	0.048
Norm - Unscheduled	0.021	0.030	0.028	0.039	0.040
MH/FH - Flt-Readiness Insp	0.303	0.440	0.519	1.185	1.072
MH/FH - Scheduled - Look	0.493	0.707	0.682	1.240	1.340
MH/FH - Scheduled - Fix	0.343	0.462	0.555	0.936	0.961
MH/FH - Unscheduled Maintenance	0.379	0.465	0.494	0.849	1.024
MH/FH - Total	1.517	2.074	2.251	4.210	4.397
Unscheduled MTBM	6.1	4.9	4.7	2.9	2.4
	******************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 10A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.946	0.932	0.936	0.912	0.916
Norm - Scheduled	0.023	0.023	0.021	0.028	0.026
Norm - Unscheduled	0.031	0.045	0.043	0.060	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.259	0.372	0.357	0.646	0.700
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.537	0.548
MH/FH - Unscheduled Maintenance	0.539	0.688	0.755	1.280	1.468
MH/FH - Total	1.302	1.768	1.953	3.669	3.809
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 10B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.942	0.917	0.923	0.895	0.900
Norm - Scheduled	0.027	0.038	0 033	0.046	0.042
Norm - Unscheduled	0.031	0.045	0.043	0.060	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.245	0.372	0.357	0.646	0.700
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.537	0.548
MH/FH - Unscheduled Maintenance	0.539	0.688	0.755	1.280	1.468
MH/FH - Total	1.288	1.768	1.953	3.669	3.809
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

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Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	1.0	1.0	1.0	1.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 10C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.953	0.933	0.937	0.919	0.922
Norm - Scheduled	0.016	0.022	0.020	0.022	0.020
Norm - Unscheduled	0.031	0.045	0.043	0.060	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.295	0.382	0.367	0.646	0.700
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.537	0.548
MH/FH - Unscheduled Maintenance	0.539	0.688	0.755	1.280	1.468
MH/FH - Total	1.338	1.778	1.962	3.669	3.809
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	2.0	2.0	3.0	3.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 11

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.990	0.991	0.992	0.982
Mission Reliability	0.970	0.961	0.968	0.969	0.931
Availability	0.942	0.931	0.937	0.910	0.912
Norm - Scheduled	0.032	0.028	0.029	0.045	0.048
Norm - Unscheduled	0.026	0.040	0.034	0.045	0.040
MH/FH - Flt-Readiness Insp	0.307	0.448	0.526	1.191	1.072
MH/FH - Scheduled - Look	0.359	0.456	0.496	1.042	1.340
MH/FH - Scheduled - Fix	0.273	0.318	0.449	0.828	0.961
MH/FH - Unscheduled Maintenance	0.452	0.620	0.604	0.965	1.024
MH/FH - Total	1.391	1.843	2.075	4.027	4.397
Unscheduled MTBM	5.2	3.9	3.9	2.6	2.4

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Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 12

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.989	0.989	0.977
Mission Reliability	0.962	0.952	0.957	0.959	0.908
Availability	0.948	0.932	0.935	0.912	0.916
Norm - Scheduled	0.017	0.015	0.015	0.024	0.026
Norm - Unscheduled	0.035	0.053	0.050	0.064	0.058
MH/FH - Flt-Readiness Insp	0.312	0.455	0.534	1.208	1.093
MH/FH - Scheduled - Look	0.192	0.246	0.264	0.547	0.700
MH/FH - Scheduled - Fix	0.138	0.160	0.220	0.446	0.548
MH/FH - Unscheduled Maintenance	0.601	0.796	0.854	1.381	1.468
MH/FH - Total	1.243	1.658	1.873	3.583	3.809
Unscheduled MTBM	4.0	3.1	2.8	1.9	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 13A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.989	0.976
Mission Reliability	0.964	0.956	0.960	0.959	0.904
Availability	0.948	0.933	0.936	0.915	0.919
Norm - Scheduled	0.019	0.019	0.017	0.021	0.018
Norm - Unscheduled	0.034	0.048	0.046	0.064	0.063
MH/FH - Flt-Readiness Insp	0.311	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.328	0.405	0.389	0.715	0.724
MH/FH - Scheduled - Fix	0.164	0.224	0.271	0.456	0.461
MH/FH - Unscheduled Maintenance	0.573	0.727	0.800	1.374	1.569
MH/FH - Total	1.376	1.807	1.992	3.749	3.848
Unscheduled MTBM	4.2	3.3	3.0	1.9	1.6
	*****************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 13B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.989	0.976
Mission Reliability	0.964	0.956	0.960	0.959	0.904
Availability	0.936	0.925	0.930	0.910	0.915
Norm - Scheduled	0.031	0.027	0.024	0.026	0.022
Norm - Unscheduled	0.034	0.048	0.046	0.064	0.063
MH/FH - Flt-Readiness Insp	0.311	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.287	0.405	0.389	0.715	0.724
MH/FH - Scheduled - Fix	0.164	0.224	0.271	0.456	0.461
MH/FH - Unscheduled Maintenance	0.573	0.727	0.800	1.374	1.569
MH/FH - Total	1.335	1.807	1.992	3.749	3.848
Unscheduled MTBM	4.2	3.3	3.0	1.9	1.6
	******************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	3.0	3.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 13C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.989	0.976
Mission Reliability	0.964	0.956	0.960	0.959	0.904
Availability	0.951	0.936	0.939	0.918	0.922
Norm - Scheduled	0.015	0.016	0.015	0.018	0.015
Norm - Unscheduled	0.034	0.048	0.046	0.064	0.063
MH/FH - Flt-Readiness Insp	0.311	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.373	0.432	0.415	0.715	0.724
MH/FH - Scheduled - Fix	0.164	0.224	0.271	0.456	0.461
MH/FH - Unscheduled Maintenance	0.573	0.727	0.800	1.374	1.569
MH/FH - Total	1.421	1.834	2.018	3.749	3.848
Unscheduled MTBM	4.2	3.3	3.0	1.9	1.6

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Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	3.0	4.0	4.0	5.0	5.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 14

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.990	0.988	0.988	0.988	0.974
Mission Reliability	0.959	0.950	0.954	0.954	0.893
Availability	0.951	0.933	0.935	0.914	0.918
Norm - Scheduled	0.011	0.011	0.009	0.012	0.010
Norm - Unscheduled	0.039	0.056	0.055	0.074	0.072
MH/FH - Flt-Readiness Insp	0.314	0.457	0.537	1.215	1.103
MH/FH - Scheduled - Look	0.183	0.222	0.216	0.400	0.410
MH/FH - Scheduled - Fix	0.091	0.117	0.144	0.261	0.257
MH/FH - Unscheduled Maintenance	0.656	0.847	0.941	1.590	1.793
MH/FH - Total	1.244	1.644	1.838	3.467	3.564
Unscheduled MTBM	3.7	2.9	2.6	1.7	1.4
	******************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 20

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.989	0.989	0.989	0.975
Mission Reliability	0.961	0.952	0.956	0.956	0.896
Availability	0.949	0.931	0.934	0.913	0.917
Norm - Scheduled	0.014	0.015	0.013	0.016	0.014
Norm - Unscheduled	0.038	0.055	0.054	0.072	0.070
MH/FH - Flt-Readiness Insp	0.313	0.455	0.535	1.211	1.099
MH/FH - Scheduled - Look	0.240	0.321	0.300	0.568	0.588
MH/FH - Scheduled - Fix	0.103	0.140	0.164	0.299	0.294
MH/FH - Unscheduled Maintenance	0.641	0.819	0.916	1.546	1.750
MH/FH - Total	1.296	1.733	1.914	3.623	3.731
Unscheduled MTBM	3.8	3.0	2.7	1.8	1.5
	******************************				
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 21A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.992	0.991	0.979
Mission Reliability	0.970	0.964	0.967	0.967	0.918
Availability	0.940	0.930	0.933	0.912	0.916
Norm - Scheduled	0.032	0.031	0.027	0.035	0.030
Norm - Unscheduled	0.030	0.041	0.042	0.054	0.055
MH/FH - Flt-Readiness Insp	0.307	0.447	0.526	1.194	1.083
MH/FH - Scheduled - Look	0.393	0.532	0.514	0.898	0.928
MH/FH - Scheduled - Fix	0.226	0.324	0.347	0.641	0.625
MH/FH - Unscheduled Maintenance	0.503	0.614	0.712	1.159	1.377
MH/FH - Total	1.427	1.915	2.098	3.890	4.012
Unscheduled MTBM	4.8	3.9	3.4	2.3	1.9
	******************************				
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 21B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.991	0.991	0.991	0.979
Mission Reliability	0.970	0.964	0.967	0.966	0.918
Availability	0.931	0.910	0.916	0.892	0.899
Norm - Scheduled	0.039	0.049	0.042	0.054	0.046
Norm - Unscheduled	0.030	0.041	0.042	0.054	0.055
MH/FH - Flt-Readiness Insp	0.307	0.447	0.526	1.193	1.082
MH/FH - Scheduled - Look	0.365	0.531	0.514	0.898	0.928
MH/FH - Scheduled - Fix	0.225	0.323	0.346	0.641	0.624
MH/FH - Unscheduled Maintenance	0.503	0.613	0.712	1.158	1.377
MH/FH - Total	1.399	1.915	2.098	3.890	4.011
Unscheduled MTBM	4.7	3.8	3.3	2.3	1.8

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Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	1.0	1.0	1.0	1.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 21C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.991	0.991	0.991	0.979
Mission Reliability	0.970	0.964	0.967	0.966	0.918
Availability	0.949	0.931	0.934	0.919	0.922
Norm - Scheduled	0.021	0.028	0.025	0.027	0.024
Norm - Unscheduled	0.030	0.041	0.042	0.054	0.055
MH/FH - Flt-Readiness Insp	0.307	0.447	0.526	1.193	1.082
MH/FH - Scheduled - Look	0.446	0.551	0.532	0.898	0.928
MH/FH - Scheduled - Fix	0.225	0.323	0.346	0.641	0.624
MH/FH - Unscheduled Maintenance	0.503	0.613	0.712	1.158	1.377
MH/FH - Total	1.481	1.934	2.116	3.890	4.011
Unscheduled MTBM	4.7	3.8	3.3	2.3	1.8
	*****************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	2.0	2.0	3.0	3.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.952	0.936	0.940	0.920	0.923
Norm - Scheduled	0.017	0.019	0.017	0.020	0.018
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.284	0.372	0.357	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.327	1.768	1.953	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7
	******************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.941	0.929	0.934	0.916	0.919
Norm - Scheduled	0.028	0.026	0.023	0.025	0.022
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled Look	0.248	0.372	0.357	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.292	1.768	1.953	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	3.0	3.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.955	0.939	0.942	0.923	0.926
Norm - Scheduled	0.014	0.016	0.015	0.018	0.016
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.322	0.397	0.381	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.366	1.793	1.977	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	3.0	4.0	4.0	5.0	5.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22D

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.957	0.940	0.943	0.924	0.927
Norm - Scheduled	0.012	0.015	0.013	0.016	0.015
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.363	0.431	0.414	0.664	0.725
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.407	1.828	2.010	3.687	3.834
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7
	******************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	4.0	5.0	5.0	6.0	6.0
(Per)	4.0	5.0	5.0	6.0	6.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 23A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.976
Mission Reliability	0.965	0.957	0.961	0.960	0.906
Availability	0.948	0.933	0.937	0.917	0.921
Norm - Scheduled	0.020	0.020	0.018	0.022	0.019
Norm - Unscheduled	0.032	0.047	0.045	0.061	0.060
MH/FH - Flt-Readiness Insp	0.310	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.340	0.410	0.397	0.743	0.753
MH/FH - Scheduled - Fix	0.184	0.238	0.292	0.518	0.516
MH/FH - Unscheduled Maintenance	0.551	0.710	0.777	1.308	1.508
MH/FH - Total	1.385	1.811	1.998	3.774	3.871
Unscheduled MTBM	4.4	3.4	3.1	2.0	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 23B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.976
Mission Reliability	0.965	0.957	0.961	0.960	0.906
Availability	0.936	0.926	0.931	0.912	0.917
Norm - Scheduled	0.032	0.028	0.024	0.027	0.023
Norm - Unscheduled	0.032	0.047	0.045	0.061	0.060
MH/FH - Flt-Readiness Insp	0.310	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.298	0.410	0.397	0.743	0.753
MH/FH - Scheduled - Fix	0.184	0.238	0.292	0.518	0.516
MH/FH - Unscheduled Maintenance	0.551	0.710	0.777	1.308	1.508
MH/FH - Total	1.343	1.811	1.998	3.774	3.871
Unscheduled MTBM	4.4	3.4	3.1	2.0	1.7

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	OH-58	UH-1	AH-1	CH-47	CH-54
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	3.0	3.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 23C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.976
Mission Reliability	0.965	0.957	0.961	0.960	0.906
Availability	0.952	0.936	0.940	0.920	0.924
Norm - Scheduled	0.016	0.017	0.015	0.019	0.016
Norm - Unscheduled	0.032	0.047	0.045	0.061	0.060
MH/FH - Flt-Readiness Insp	0.310	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.386	0.438	0.424	0.743	0.753
MH/FH - Scheduled - Fix	0.184	0.238	0.292	0.518	0.516
MH/FH - Unscheduled Maintenance	0.551	0.710	0.777	1.308	1.508
MH/FH - Total	1.431	1.838	2.024	3.774	3.871
Unscheduled MTBM	4.4	3.4	3.1	2.0	1.7

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Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	3.0	4.0	4.0	5.0	5.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 24

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.990	0.988	0.988	0.988	0.974
Mission Reliability	0.959	0.950	0.954	0.954	0.893
Availability	0.951	0.933	0.935	0.914	0.918
Norm - Scheduled	0.011	0.011	0.009	0.012	0.010
Norm - Unscheduled	0.038	0.056	0.055	0.074	0.072
MH/FH - Flt-Readiness Insp	0.314	0.457	0.537	1.215	1.104
MH/FH - Scheduled - Look	0.184	0.224	0.215	0.397	0.407
MH/FH - Scheduled - Fix	0.091	0.118	0.145	0.263	0.258
MH/FH - Unscheduled Maintenance	0.653	0.843	0.938	1.589	1.792
MH/FH - Total	1.242	1.642	1.835	3.464	3.561
Unscheduled MTBM	3.7	2.9	2.6	1.7	1.4
	**************************************				
Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 25

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.995	0.993	0.994	0.994	0.984
Mission Reliability	0.977	0.973	0.976	0.975	0.938
Availability	0.932	0.920	0.929	0.907	0.914
Norm - Scheduled	0.049	0.054	0.046	0.058	0.050
Norm - Unscheduled	0.021	0.028	0.026	0.037	0.038
MH/FH - Flt-Readiness Insp	0.299	0.433	0.512	1.167	1.056
MH/FH - Scheduled - Look	0.877	1.172	1.102	2.115	2.168
MH/FH - Scheduled - Fix	0.362	0.494	0.587	0.997	1.018
MH/FH - Unscheduled Maintenance	0.356	0.428	0.457	0.783	0.961
MH/FH - Total	1.894	2.525	2.657	5.061	5.201
Unscheduled MTBM	6.6	5.4	5.1	3.2	2.6
	*****************************				
Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

APPENDIX IX

COMPONENT MIX FOR RECOMMENDED INSPECTION SCHEME

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
110101	Frame/Stringer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110102	Skin	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110103	Windshield	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110104	Window	X				X				X				X			
110105	Escape Hatch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110106	Hatch Jettison Mechanism				X								X				
110107	Cargo Ramp	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110108	Horizontal Stabilizer Section	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110109	Step/Handhold	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110110	Antenna/Support				X								X				
110201	Sliding Cabin Door	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110202	Hinged Cabin Door	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110203	Door Strut Set				X								X				
110204	Door Latch Mechanism	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110205	Door Jettison Mechanism				X								X				
110301	Hinged Access Door/ Cowling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110302	Hinged Work Platform	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110303	Door/Cowl/Platform Latch Mechanism	X				X				X				X			
110304	Removable Fairing/Cowling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110305	Removable Access Panel	X				X				X				X			
110401	Instrument Console				X								X				
110402	Equipment Rack				X								X				
110403	Floor Panel	X				X				X				X			
110404	Seat Track				X								X				
110501	Firewall	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110502	Scupper/Drain	X				X				X				X			
110503	Hanger Brg Support Support Structure	X				X				X				X			
110601	Engine Fitting	X				X				X				X			
110602	Transmission/Gearbox Fitting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110603	Tail Boom Attach Fitting	X				X				X				X			
110604	Landing Gear Fitting	X				X				X				X			

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
110605	Cargo Hook Fitting				X								X				
110606	Armament				X								X				
120101	Instrument Panel				X								X				
120102	Glare Shield		X		X		X		X		X		X		X		X
120103	Overhead Panel				X								X				
120104	Pilot/Copilot Seat/ Cushion	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
120105	Seat Adjustment Mechanism				X								X				
120106	Inertia Reel				X								X				
120107	Shoulder Harness/Lap Belt				X								X				
120108	Armor Plate Set				X								X				
120109	Armor Plt Quick-Release Mechanism				X								X				
120110	Relief Tube				X								X				
120111	Map Case				X								X				
120112	Spare Lamp Storage Box				X								X				
120201	Passenger Seat				X								X				
120202	Lap Belt	X				X				X				X			
120203	Insulation Blanket Panel				X								X				
120204	Block & Tackle Assembly				X								X				
120301	Ramp Control Panel				X								X				
120302	Ramp Actuating Cylinder and Lock	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
120401	Hatch Door Actuating Cylinder	X				X				X				X			
120402	Hatch Door Latch	X				X				X				X			
130101	Skid Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130102	Skid Tube Shoe	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130103	Cross Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130104	Cross Tube Support	X				X				X				X			
130105	Strut Fairing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130201	Shock Strut	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130202	Drag Strut	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130203	Scissors Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130204	Shimmy Damper Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130205	Wheel Lock	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
130207	Wheel & Tire Assembly	X				X				X				X			
130301	Power Brake Master Cylinder	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
130302	Brake Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130303	Parking Brake Control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130304	Parking Brake Cable		X		X		X		X		X		X		X		X
130305	Parking Brake Linkage/ Spring				X								X				
13036	Parking Brake Valve				X								X				
130401	Rheostat				X								X				
130402	Electrical Harness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130403	Power Steering Hyd Unit	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130501	Tail Skid Shock Strut	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130502	Tail Skid Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130503	Tail Skid Actuator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140101	Collective Stick Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140102	Friction Brake	X				X				X				X			
140103	Torque Tube				X								X				
140104	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140105	Crank/Lever/Arm, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140106	Magnetic Brake	X				X				X				X			
140107	Damper Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140108	Engine Droop Eliminator Unit				X								X				
140109	Boot/Seal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140201	Cyclic Control Stick	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140202	Stick Trim Actuator	X				X				X				X			
140203	Longitudinal Stick Pos Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140204	Torque Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140205	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140206	Crank/Lever/Arm, etc	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140207	Magnetic Brake	X				X				X				X			
140208	Force Gradient Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140209	Long Tdnl Cyclic Trim Spd Actr	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140210	Boot/Seal	X				X				X				X			

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
140301	Controls Mixer Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140401	Swashplate Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140403	Scissor & Sleeve Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140404	Link/Rod/Lever, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140405	Swashplate Boot/Seal					X								X			
140406	Swashplate Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140501	Pedal Assembly				X								X				
140502	Pedal Adjustment Mech	X				X				X				X			
140503	Tail Rotor Trim Actuator				X								X				
140504	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140505	Crank/Lever/Arm, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140506	Magnetic Brake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140507	Force Gradient Assy	X				X				X				X			
140508	Pulley				X								X				
140509	Quadrant				X								X				
140510	Cable Assy/Turnbuckle	X	X	X	X	X	X	X	[illegible]	X	X	X	X	X	X	X	X
140511	Fairlead	X				X				X				X			
140512	Chain Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140601	Cross Head/Star	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140602	Pitch Change Link	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140701	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140702	Crank/Lever/Arm, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140703	Torque Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140801	SAS Gyro	X				X				X				X			
140802	SAS Transducer				X								X				
140803	SAS Control Actuator	X				X				X				X			
150101	M.R. Blade Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150102	Drag Brace	X				X				X				X			
150103	Damper Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150104	Damper Reservoir				X								X				
150105	Damper Hose				X								X				
150106	Pitch Varying Housing/ Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150107	Tension-Torsion Strap Set				X								X				
150108	Hub Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150109	Hub Oil Reservoir	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150111	Centrifugal Droop Stop Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
150112	Anti-Flap Restrainer				X								X				
150113	Pitch Horn	X				X				X				X			
150114	Pitch Link	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150115	K Bar	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150116	Control Tube/Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150117	Stabilizer Bar Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150118	Stabilizer Damper	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150119	Rotary-Wing Head Fairing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150120	Sand Deflector	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150121	Boot/Cover	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150122	Pitch Vary Hsg/Assy (Hvy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150123	Hub Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150201	T.R. Blade Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150202	Sleeve & Spindle Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150203	Hub Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150204	Oil Reservoir				X								X				
220101	Engine Assembly	X				X				X				X			
220201	Combustion Case Fuel Drain Valve		X		X		X		X		X		X		X		X
220202	Exhaust Ejector				X								X				
220203	Insulation Blanket				X								X				
220204	Fireshield	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220301	Fuel Control Assembly	X				X				X				X			
220302	Fuel Control Strainer				X								X				
220303	Servo Filter				X								X				
220305	Overspeed Governor	X				X				X				X			
220306	Fuel Boost Pump				X								X				
220307	Fuel Filter				X								X				
220308	Fuel Heater	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220309	Flow Divider Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220310	Main & Starting Fuel Manifold				X								X				
220311	Line/Hose	X				X				X				X			
220401	Oil Tank	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220402	Oil Strainer				X								X				
220403	Oil Filter	X				X				X				X			
220404	Liq-to-Liq Oil Cooler	X				X				X				X			
220405	Line/Hose				X								X				
220501	Test Switch				X								X				
220502	Electrical Harness Assy				X								X				
220503	Fire Detector Element	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
220601	Ignition Exciter				X								X				
220602	Ignition Harness				X								X				
220603	Igniter Plug				X								X				
220701	Anti-icing Probe				X								X				
220702	Airbleed Actuator/ Strainer				X								X				
220703	Air Valve Assembly				X								X				
220704	Line/Hose	X				X				X				X			
240101	App Engine Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240201	Air Inlet Screen	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240202	Air Inlet Duct	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240204	Insulation Blanket				X								X				
240301	Fuel Control Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240302	Acceleration Control Assembly				X								X				
240303	Rated Speed Control Assy	X				X				X				X			
240304	Fuel Boost Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240305	Fuel Filter				X								X				
240306	Pressure Switch	X				X				X				X			
240307	Fuel Shutoff Valve	X				X				X				X			
240308	Line/Hose				X								X				
240401	Oil Reservoir				X								X				
240402	Oil Filter				X								X				
240403	Oil Relief Valve				X								X				
240404	Line/Hose				X								X				
240501	Start Switch	X				X				X				X			
240502	Relay				X								X				
240503	Speed Control Switch				X								X				
240601	Ignition Unit	X				X				X				X			
240602	Exciter	X				X				X				X			
240603	Ignition Harness				X								X				
240604	Igniter Plug				X								X				
240701	Hydraulic Pump Motor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240702	Hand Pump				X								X				
240703	Accumulator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240704	Solenoid Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240705	Line/Hose	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
240801	Thermocouple				X								X				

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
240802	Hour Meter		X				X				X				X		
240901	Tubular Mount		X				X				X				X		
240902	Rubber Shock Mount				X								X				
260101	Engine Drive Shaft	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260102	Shaft Coupling - Thomas Type	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260103	Shaft Coupling - Zurn Type	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260104	Shaft to Coupling Clamp		X				X				X				X		
260105	Hanger Bearing	X				X				X				X			
260106	Bearing Shock Mount		X				X				X				X		
260107	Eng/Sync Drive Shft (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260201	T.R./Aux Pwr Plant Shft	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260202	Shft Coupling - Thomas Type		X				X				X				X		
260203	Shft Coupling - Zurn Type	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260204	Shft to Coupling Clamp		X				X				X				X		
260205	Hanger Bearing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260206	Viscous Damper				X								X				
260301	Rotor Dr Shft & Hsg Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260302	Rds Mag Chip Detector		X		X		X		X		X		X		X		X
260401	Fan Drive Shft Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260402	Drive Belt	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260403	Drive Belt Pulley				X								X				
260501	Freewheeling Assembly		X				X				X				X		
260502	Mag Chip Detector				X								X				
260503	Aux Pwr Plant Shft Clutch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260601	Engine Transmission Assy				X								X				
260602	Combining Transmission Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260603	Main Rotor Transmission Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260604	Intermediate Gearbox Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260605	Tail Rotor Gearbox Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
260606	M.R. Transmission (Hvy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260607	Int Gearbox Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260608	T.R. Gearbox Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260701	Oil Tank		X				X				X				X		
260702	Oil Pump		X				X				X				X		
260703	Pressure Relief Valve				X								X				
260704	Oil Filter				X								X				
260705	Oil Cooler				X								X				
260706	Thermostatic Valve				X								X				
260707	Line/Hose		X				X				X				X		
260801	Pylon Mount Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260802	Damper	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260803	Lift Link	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260804	Tubular Mount Assy		X				X				X				X		
260901	Brake Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260902	Disc				X								X				
260903	Line/Hose	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260904	Switch				X								X				
260905	Throttle Interlock				X								X				
260906	Solenoid		X				X				X				X		
260907	Wiring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290101	Engine Mount	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290102	Engine Mount Bearing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290103	Torque Sensor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290201	Particle Separator Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290202	Door Actuator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290203	Cable Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290204	Pulley				X								X				
290205	Control Level	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290206	Pressure Switch		X				X				X				X		
290207	Wiring Harness				X								X				
290208	Particle Sep Assy (Hvy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290301	Inlet Screen	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290302	Inlet Duct/Plenum Chamber	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

		INSPECTION POINTS															
COMPONENT		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
290303	Alternate Air Bypass Door				X								X				
290401	Tailpipe		X		X		X		X		X		X		X		X
290402	Tailpipe Adapter/Ext		X				X				X				X		
290403	Tailpipe Clamp/Coupling				X								X				
290501	Bleed Air Valve		X				X				X				X		
290601	Temperature Sensor				X								X				
290602	Engine Anti-Ice Switch		X				X				X				X		
290603	Solenoid Valve				X								X				
290604	Wiring Harness				X								X				
290701	Starter Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290702	Starter Relay				X								X				
290703	Starter Solenoid				X								X				
290704	Starter Generator		X				X				X				X		
290705	Hydraulic Starter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290706	Starter Pressure Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290707	Eng Start Hyd Manifold Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290801	Control Quadrant Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290802	Eng Cond Control Box	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290803	Throttle Twist Grip Mech				X								X				
290804	Engine Control Linkage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290805	Cable/Pulley	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290806	Control Cable Tensioner				X								X				
290807	Flex Cable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290808	Boot/Seal		X				X				X				X		
290809	Droop Compensator Cam Box		X				X				X				X		
290810	Trim Switch				X								X				
290811	RPM Control Actuator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290812	Elec Harness Assy				X								X				
290901	Eng Speed Sensitive Sw		X				X				X				X		
290902	RPM Warning Limit Det/Box		X				X				X				X		
290903	Audio Warning Unit		X				X				X				X		
291001	Oil Tank								X								X
291002	Oil Cooler Blower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
291003	Blower Duct		X		X		X		X		X		X		X		X
291004	Oil Cooler	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
291005	Thermostatic Bypass Vlv								X								X
291006	Solenoid Shutoff Valve								X								X
291007	Line/Hose		X				X				X				X		

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
410101	Thermostat								X								X
410102	Anti-Ice Switch		X				X				X				X		
410103	Heat Relay								X								X
410104	Heater Element								X								X
420101	Generator								X								X
420102	Voltage Regulator								X								X
420103	Relay								X								X
420104	Current Limiter								X								X
420105	Receptacle	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420106	Transformer								X								X
420107	Transformer Rectifier								X								X
420108	Inverter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420109	Control Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420201	Generator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420202	Voltage Regulator								X								X
420203	Relay		X		X		X		X		X		X		X		X
420204	Current Limiter								X								X
420205	Receptacle	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420206	Battery	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420207	Battery Sump Jar	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420301	Master Sw Control Panel								X								X
420302	Aircraft Wiring		X				X				X				X		
440101	Cockpit/Cabin Light								X						X		
440102	Instrument Light								X								X
440103	Control Panel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440201	Landing Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440202	Search Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440203	Position/Formation Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440204	Anticollision Light		X				X				X				X		
440205	Flasher Unit	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440206	Control Panel								X								X
450101	Reservoir	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450102	Hydraulic Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450103	Hydraulic Hand Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450104	Hydraulic Filter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450105	Accumulator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450106	Solenoid								X								X
450107	Relief Valve		X				X				X				X		

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	40C	500	600	700	800	100	200	300	400	500	600	700	8Ɔ0
450108	Check Valve		X				X				X				X		
450109	Drain Valve		X				X				X				X		
450110	Hydraulic Motor								X								X
450111	Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450112	Hose/Line		X				X				X				X		
450201	Accumulator								X								X
450202	Flight Boost Manifold		X				X				X				X		
450203	Control/Pilot Valve								X								X
450204	Cylinder	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450206	Irreversible Valve		X				X				X				X		
450207	Lockout Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450208	Pressure Reducer Valve		X				X				X				X		
450301	Pressure Switch								X								X
450401	Cooler Blower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450403	Blower Duct								X								X
450403	Electro-Hydraulic Motor								X								X
450404	Hyd Fluid Cooler	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450405	Thermostat	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
460101	Fuel Cell								X								X
460102	Sump Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
460103	Fuel Filter			X				X				X				X	
460104	Engine Fuel Purifier								X								X
460105	Fuel Selector Valve								X								X
460106	Line/Hose			X				X				X				X	
460108	Pressure Fueling Adapter								X								X
460109	Defueling Valve								X								X
460110	Sump Drain								X								X
460201	Fuel Pump			X				X				X				X	
450202	Solenoid Valve								X								X
460203	Fuel Shutoff Va[illegible]								X								X
460204	Line/Hose			X				X				X				X	
490101	Fire Detector Element			X				X				X				X	
490102	Amplifier								X								X
490103	Fire Detection Control			X				X				X				X	
490104	Fire Detection Test Sw			X				X				X				X	
490201	Control Switch			X				X				X				X	
490202	Wiring Harness			X				X				X				X	
490203	Nitrogen Fire Bottle			X				X				X				X	

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
490204	Line/Hose								X								X
490301	Wiper Control Panel								X								X
490302	Wiper Motor			X				X				X				X	
490303	Relay								X								X
490304	Wiring Harness								X								X
490305	Mechanical Linkage								X								X
490306	Blade Arm								X								X
490307	Blade			X				X				X				X	
490401	Heat/Rain Removal Valve								X								X
490402	Line/Hose			X				X				X				X	
490501	Washer Switch			X				X				X				X	
490502	Electric Pump								X								X
490503	Reservoir								X								X
490504	Washer Nozzles	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490601	Cargo Suspension Assy			X				X				X				X	
490602	Cargo Hook Assembly								X								X
490603	Cargo Release Pedal/ Cable			X				X				X				X	
490604	Release Solenoid	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490605	Release Relay								X								X
490606	Winch Control Panel								X								X
490607	Hyd Winch Assembly			X				X				X				X	
490608	Load Leveler Cylinder	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490609	Winch Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490610	Relief/Shutoff Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490611	Line/Hose	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490612	Hoist Cable								X								X
490613	Limit Switch			X				X				X				X	
490614	Control Panel								X								X
490615	Guillotine								X								X
490701	Combustion Heater Assy			X				X				X				X	
490702	Air Blower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490703	Ventilation/Heater Duct								X								X
490704	Air Pressure Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490705	Cabin Heat Control Panel								X								X
490706	Heater Fuel Line			X				X				X				X	
490801	Control Panel								X								X
490802	Solenoid Valve								X								X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
490803	Heater Duct								X								X
490901	Chip Det Relay Panel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
490902	Chip Detector								X								X
491001	Control Panel								X								X
491002	Warning Horn			X				X				X				X	
491003	Flasher Unit								X								X
510101	Airspeed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510102	Vertical Climb								X								X
510103	Barometric Altimeter			X				X				X				X	
510104	Rate of Climb								X								X
510105	Directional Gyro								X								X
510106	Turn/Slip								X								X
510107	Attitude Indicator			X				X				X				X	
510108	Flt Dir Hover Ind								X								X
510109	Cruise Guide Ind								X								X
510201	AC Voltmeter								X								X
510202	DC Voltmeter								X								X
510203	DC Loadmeter								X								X
510204	Clock			X				X				X				X	
510205	Outside Air Temp								X								X
510206	Master Caution Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510207	Master Fire Warning Lgt								X								X
510208	Caution Light								X								X
510301	Pitot Head			X				X				X				X	
510302	Static Head								X								X
510303	Pitot Heat Switch			X				X				X				X	
510304	Line/Hose								X								X
510305	Drain Valve								X								X
510401	Magnetic Compass	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510501	Radio Magnetic Ind								X								X
510502	Compass Transmitter								X								X
510503	Amplifier	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510504	Directional Gyro			X				X				X				X	
510505	Controller			X				X				X				X	
510601	Dual Tach Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510602	Tach Generator			X				X				X				X	
510603	Oil Temperature Ind	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510604	Oil Temperature Bulb								X								X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
CODE	NOMENCLATURE	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
510605	Oil Pressure Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510606	Oil Pressure Transmitter			X				X				X				X	
510607	Fuel Pressure Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510608	Fuel Pressure Transmitter			X				X				X				X	
510609	Torque Indicator			X				X				X				X	
510610	Torque Sensor Transmitter								X								X
510611	Exhaust Gas Temp Ind		X		X		X		X		X		X		X		X
510612	Exhaust Thermocouple Assy								X								X
510701	Oil Pressure Indicator								X								X
510702	Oil Pressure Transmitter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510703	Oil Pressure Transducer								X								X
510704	Tach Indicator								X								X
510705	Tach Generator								X								X
510706	Oil Temperature Ind								X								X
510707	Temp Indicator Select Sw								X								X
510708	Oil Temperature Bulb								X								X
510709	Thermoswitch								X								X
510801	Fuel Quantity Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510802	Selector Switch								X								X
510803	Fuel Quantity Transmitter								X								X
510804	Low Level Switch			X				X				X				X	
510901	Boost Pressure Ind								X								X
510902	Utility Pressure Ind	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510903	Pressure Transmitter			X				X				X				X	
511101	EGT Indicator								X								X
511102	Tachometer								X								X
511103	Oil Pressure Ind	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
910101	Portable Fire Bottle			X				X				X				X	
910102	Fire/Crash Axe/Knife								X								X
910201	First Aid Kit								X								X
910301	Survival Kit			X				X				X				X	

APPENDIX X
MODEL OPTION A AND B OUTPUTS FOR RECOMMENDED INSPECTION SCHEME (UH-1)

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
1100000	AIRFRAME SYSTEM													
1101000	FUSELAGE SUBSYSTEM													
1101010	FRAME/STRINGER	3	10	9	0	50	68	76	194	29	33	1	0	100.0
1101020	SKIN	2	33	84	227	75	116	352	770	73	221	5	1	100.0
1101030	WINDSHIELD	2	5	13	15	2	30	89	137	18	52	0	0	100.0
1101040	WINDOW	10	1	13	77	3	1	34	116	1	23	0	0	400.0
1101080	HORIZONTAL STABILIZER SECTION	2	15	10	30	20	40	31	121	28	21	0	0	100.0
1101090	STEP/HAND HOLD	12	8	*	0	9	5	*	14	3	0	0	0	100.0
1101100	ANTENNA/SUPPORT	13	0	58	51	2	0	126	179	0	63	0	0	800.0
	SUBSYSTEM TOTAL		73	188	400	162	260	709	1531	151	414	6	2	
1102000	COCKPIT/CABIN DOOR SUBSYSTEM													
1102010	SLIDING CABIN DOOR	2	20	65	30	15	34	133	213	24	94	0	0	100.0
1102020	HINGED CABIN DOOR	2	18	32	30	10	26	54	120	22	47	0	0	100.0
1102040	DOOR LATCH MECHANISM	4	4	15	30	5	7	31	73	5	23	0	0	100.0
1102050	DOOR JETTISON MECHANISM	4	0	1	0	5	0	1	6	0	1	0	0	800.0
	SUBSYSTEM TOTAL		43	113	91	35	67	219	412	52	165	1	0	
1103000	ACCESS DOOR/COWL SUBSYSTEM													
1103010	HINGED ACCESS DOOR/COWLING	8	29	26	60	30	40	43	174	34	37	0	0	100.0
1103030	DOOR/COWL/PLTFM LATCH MECHSM	16	1	9	62	5	1	12	89	1	11	0	0	400.0
1103040	REMOVABLE FAIRING/COWLING	4	118	50	60	10	247	146	463	188	111	2	0	100.0
1103050	REMOVABLE ACCESS PANEL	14	1	5	54	4	1	10	69	1	7	0	0	400.0
	SUBSYSTEM TOTAL		147	93	237	49	289	211	786	224	166	2	0	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
1104000	COCKPIT/CABIN INTERIOR SUBSYS													
1104010	INSTRUMENT CONSOLE	1	0	6	0	1	0	6	7	0	5	0	0	800.0
1104030	FLOOR PANEL	7	1	6	54	7	7	40	109	3	18	0	0	400.0
1104040	SEAT TRACK	2	0	1	0	1	0	2	2	0	1	0	0	800.0
	SUBSYSTEM TOTAL		1	13	54	8	8	48	117	3	25	0	0	
1105000	ENG COMPARTMENT/TUNNEL SUBSYS													
1105010	FIREWALL	2	4	6	0	10	11	23	44	7	15	0	0	100.0
1105020	SCUPPER/DRAIN	2	0	*	0	0	0	*	1	0	0	0	0	400.0
1105030	HANGER BRG SUPPT STRUCTURE	4	1	3	0	2	1	5	8	1	5	0	0	400.0
	SUBSYSTEM TOTAL		4	9	0	13	12	28	53	8	20	0	0	
1106000	FITTING/HARDPOINT SUBSYSTEM													
1106010	ENGINE FITTING	6	0	2	46	2	1	14	63	0	7	0	0	400.0
1106020	TRANSMISSION/GEARBOX FITTING	1	3	*	0	2	6	*	9	4	0	0	0	100.0
1106030	TAIL BOOM ATTACH FITTING	4	0	6	0	7	0	15	22	0	9	0	0	400.0
1106040	LANDING GEAR FITTING	4	0	1	0	1	0	2	3	0	2	0	0	400.0
1106050	CARGO HOOK FITTING	1	0	*	0	0	0	*	1	0	0	0	0	800.0
	SUBSYSTEM TOTAL		3	9	46	13	7	31	98	5	18	0	0	
	SYSTEM TOTAL		272	431	829	280	642	1246	2997	444	808	10	2	
1200000	FUSELAGE COMPARTMENT SYSTEM													
1201000	COCKPIT SUBSYSTEM													
1201010	INSTRUMENT PANEL	1	0	6	0	1	0	6	7	0	5	0	0	800.0
1201030	OVERHEAD PANEL	1	0	1	0	1	0	1	1	0	1	0	0	800.0

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV RSPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
1201040	PILOT/COPILOT SEAT/CUSHION	2	3	23	0	10	3	30	44	3	25	1	0	100.0
1201050	SEAT ADJUSTMENT MECHANISM	2	0	1	0	2	0	1	3	0	1	0	0	800.0
1201060	INERTIA REEL	2	0	3	31	2	0	2	35	0	2	0	0	800.0
1201070	SHOULDER HARNESS/LAP BELT	4	0	7	62	1	0	5	68	0	4	0	0	800.0
1201080	ARMOR PLATE SET	2	0	*	0	0	0	*	1	0	1	0	0	800.0
1201090	ARMR PLT QUICK RELEASE MECHNSM	2	0	1	0	2	0	1	3	0	1	0	0	800.0
1201110	MAP CASE	1	0	6	0	0	0	5	5	0	5	0	0	800.0
1201120	SPARE LAMP STORAGE BOX	1	0	6	0	0	0	5	6	0	5	0	0	800.0
	SUBSYSTEM TOTAL		4	55	93	20	4	56	173	3	49	2	0	
1202000	CABIN SUBSYSTEM													
1202010	PASSENGER SEAT	11	0	6	0	5	1	15	21	0	10	0	0	800.0
1202020	LAP BELT	11	2	3	85	3	1	2	92	1	2	0	0	400.0
1202030	INSULATION BLANKET PANEL	5	0	*	0	3	0	*	4	0	1	0	0	800.0
	SUBSYSTEM TOTAL		3	10	85	12	2	18	117	2	12	0	0	
	SYSTEM TOTAL		6	65	179	32	6	74	290	5	61	2	0	
1300000	LANDING GEAR SYSTEM													
1301000	MLG SKID TYPE SUBSYSTEM													
1301010	SKID TUBE	2	14	26	15	10	84	190	298	37	84	1	1	100.0
1301020	SKID TUBE SHOE	2	3	5	15	5	11	21	52	5	10	0	0	100.0
1301030	CROSS TUBE	2	1	13	15	15	10	111	152	5	50	0	0	100.0
1301040	CROSS TUBE SUPPORT	4	1	7	31	4	1	7	43	1	7	0	0	400.0
	SUBSYSTEM TOTAL		20	50	76	34	106	328	544	48	150	2	1	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
1305000	TAIL SKID SUBSYSTEM													
1305020	TAIL SKID TUBE	1	2	6	8	5	4	12	28	3	9	1	0	100.0
	SUBSYSTEM TOTAL		2	6	8	5	4	12	28	3	9	1	0	
	SYSTEM TOTAL		22	56	84	39	110	340	573	51	159	2	1	
1400000	FLIGHT CONTROLS SYSTEM													
1401000	COLLECTIVE PITCH CNTLS SUBSYS													
1401010	COLLECTIVE STICK ASSEMBLY	2	35	25	30	25	71	59	185	53	44	1	0	100.0
1401020	FRICTION BRAKE	2	0	42	0	2	1	157	161	1	81	1	0	400.0
1401030	TORQUE TUBE	1	0	*	0	2	0	*	6	0	1	0	0	800.0
1401040	PUSH-PULL ROD	3	6	2	23	11	10	4	48	7	3	0	0	100.0
1401050	CRANK/LEVER/ARM, ETC	3	2	8	23	15	5	22	65	4	18	1	0	100.0
1401090	BOOT/SEAL	3	3	5	0	4	5	9	17	4	7	0	0	100.0
	SUBSYSTEM TOTAL		47	83	76	59	91	255	481	68	154	3	1	
1402000	CYCLIC CONTROLS SUBSYSTEM													
1402010	CYCLIC CONTROL STICK	2	2	23	30	25	3	46	104	2	35	1	0	100.0
1402040	TORQUE TUBE	1	4	4	0	13	8	11	31	6	9	0	0	100.0
1402050	PUSH-PULL ROD	9	3	4	68	34	4	7	113	3	5	0	0	100.0
1402060	CRANK/LEVER/ARM, ETC	3	12	16	23	15	28	43	108	22	34	1	0	100.0
1402070	MAGNETIC BRAKE	2	0	22	0	1	1	99	101	0	52	0	0	400.0
1402080	FORCE GRADIENT ASSEMBLY	2	1	7	0	7	3	22	33	2	17	0	0	100.0
1402100	BOOT/SEAL	4	0	*	0	1	0	*	1	0	0	0	0	400.0
	SUBSYSTEM TOTAL		22	76	121	96	47	229	493	36	152	3	1	

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCH RE- PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
1403000	CONTROLS MIXER SUBSYSTEM													
1403010	CONTROLS MIXER ASSEMBLY	1	4	*	45	50	10	*	105	8	0	0	0	100.0
	SUBSYSTEM TOTAL		4	0	45	50	10	0	105	8	0	0	0	
1404000	MAST CONTROLS SUBSYSTEM													
1404010	SWASHPLATE ASSEMBLY	1	8	31	45	100	41	185	371	23	104	4	1	100.0
1404030	SCISSOR & SLEEVE ASSEMBLY	1	32	25	30	38	83	80	230	58	55	1	0	100.0
1404040	LINK/ROD/LEVER, ETC	3	27	34	23	11	89	135	258	57	86	0	0	100.0
1404050	SWASHPLATE BOOT/SEAL	2	0	1	0	0	0	2	2	0	2	0	0	800.0
	SUBSYSTEM TOTAL		67	91	98	149	212	401	861	137	246	5	2	
1405000	TAIL ROTOR CONTROLS SUBSYSTEM													
1405010	PEDAL ASSEMBLY	4	0	10	0	1	0	15	16	0	13	1	0	800.C
1405020	PEDAL ADJUSTMENT MECHANISM	2	0	4	0	2	0	10	12	0	9	0	0	400.0
1405040	PUSH-PULL ROD	8	0	1	60	30	1	4	95	1	2	0	0	100.0
1405050	CRANK/LEVER/ARM, ETC	10	12	9	70	50	22	20	169	17	15	0	0	100.0
1405060	MAGNETIC BRAKE	1	0	4	0	2	1	13	16	1	8	0	0	100.0
1405070	FORCE GRADIENT ASSEMBLY	1	0	1	0	1	1	5	7	1	4	0	0	400.0
1405080	PULLEY	6	1	4	0	2	1	6	8	1	5	0	0	800.0
1405090	QUADRANT	1	0	1	0	1	0	1	2	0	1	0	0	800.0
1405100	CABLE ASSEMBLY/TURNBUCKLE	4	8	11	45	70	13	21	149	9	15	1	0	100.0
1405110	FAIRLEAD	10	2	6	0	3	2	8	13	2	7	0	0	400.0
1405120	CHAIN ASSEMBLY	1	7	2	0	13	11	5	36	9	4	0	0	100.0
	SUBSYSTEM TOTAL		30	54	189	174	53	107	524	39	81	3	0	

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR ENT	UNSCH REPR ENT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
1406000	TAIL ROTOR PITCH CNTRL SUBSYS													
1406010	CROSS HEAD/STAR	1	16	10	38	10	24	18	90	23	17	1	0	100.0
1406020	PITCH CHANGE LINK	2	10	23	15	7	12	33	68	11	31	1	0	100.0
	SUBSYSTEM TOTAL		26	33	53	17	36	52	158	33	48	2	0	
1407000	ELEVATOR CONTROLS SUBSYSTEM													
1407010	PUSH-PULL ROD	6	1	1	45	22	1	4	73	1	3	0	0	100.0
1407020	CRANK/LEVER/ARM, ETC	5	0	*	38	19	1	*	58	1	6	0	0	100.0
1407030	TORQUE TUBE	1	1	1	0	13	6	7	26	4	5	1	0	100.0
	SUBSYSTEM TOTAL		2	3	83	54	9	12	158	6	8	1	0	
	SYSTEM TOTAL		198	339	665	600	458	1056	2780	327	689	16	4	
1500000	ROTOR SYSTEM													
1501000	MAIN ROTOR SUBSYSTEM													
1501010	M.R. BLADE ASSEMBLY	2	5	32	302	40	24	197	564	11	85	4	3	100.0
1501020	DRAG BRACE	2	0	3	15	1	1	5	22	0	3	1	0	400.0
1501060	PITCH VARYING HOUSING/ASSY	2	3	4	30	20	8	12	70	5	8	0	0	100.0
1501070	TENSION-TORSION STRAP SET	2	0	*	0	0	0	*	1	0	1	0	0	800.0
1501080	HUB ASSEMBLY	1	2	46	15	10	15	350	390	7	159	2	1	100.0
1501090	HUB OIL RESERVOIR	4	1	2	30	5	2	5	42	1	3	0	0	100.0
1501130	PITCH HORN	2	0	1	15	1	0	1	18	0	1	0	0	400.0
1501140	PITCH LINK	2	28	59	15	7	39	99	161	31	78	2	0	100.0
1501160	CONTROL TUBE/ROD	4	7	6	30	15	9	10	64	7	7	0	0	100.0
1501170	STABILIZER BAR ASSEMBLY	1	22	38	15	15	38	77	145	29	59	2	1	100.0

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.A. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR ENT	UNSCH REPR ENT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
1501180	STABILIZER DAMPER	2	62	9	0	30	92	17	139	74	14	0	0	100.0
	SUBSYSTEM TOTAL		131	199	470	145	229	772	1616	165	416	11	4	
1502000	TAIL ROTOR SUBSYSTEM													
1502010	T.R. BLADE ASSEMBLY	2	8	44	76	20	10	63	169	9	58	5	1	100.0
1502030	HUB ASSEMBLY	1	21	42	8	7	33	81	129	29	71	2	1	100.0
	SUBSYSTEM TOTAL		29	86	83	27	43	144	298	38	129	9	1	
	SYSTEM TOTAL		159	285	553	172	272	916	1913	203	545	19	5	
2200000	TURBOSHAFT ENGINE SYSTEM													
2201000	ENGINE ASSEMBLY SUBSYSTEM													
2201010	ENGINE ASSEMBLY	1	1	33	155	132	4	209	500	2	91	4	1	400.0
	SUBSYSTEM TOTAL		1	33	155	132	4	209	500	2	91	4	1	
2202000	ENG REPLACABLE COMPNENTS SUBSYS													
2202030	INSULATION BLANKET	1	0	*	0	0	0	*	1	0	0	0	0	800.0
2202040	FIRESHIELD	1	3	1	0	2	9	4	15	6	3	0	0	100.0
	SUBSYSTEM TOTAL		3	1	0	3	9	5	16	6	3	0	0	
2203000	ENGINE FUEL SUBSYSTEM													
2203010	FUEL CONTROL ASSEMBLY	1	0	18	0	6	0	44	51	0	36	1	0	400.0
2203020	FUEL CONTROL STRAINER	1	0	1	0	3	0	1	4	0	1	0	0	800.0
2203030	SERVO FILTER	1	0	1	0	3	0	1	4	0	1	0	0	800.0
2203050	OVERSPEED GOVERNOR	1	0	15	0	1	0	23	25	0	20	2	1	400.0
2203060	FUEL BOOST PUMP	1	0	1	0	0	0	1	1	0	1	0	0	800.0
2203070	FUEL FILTER	1	0	1	8	3	0	1	12	0	1	0	0	800.0

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.H. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
2203100	MAIN & STARTING FUEL MANIFOLD	1	0	5	8	1	0	39	48	0	20	1	1	600.0
2203110	LINE/HOSE	3	0	5	12	1	1	8	20	1	8	1	0	400.0
	SUBSYSTEM TOTAL		1	47	27	18	1	118	165	1	87	5	2	
2204000	ENGINE LUBRICATION SUBSYSTEM													
2204010	OIL TANK	1	2	5	15	7	3	8	34	3	7	0	0	100.0
2204020	OIL STRAINER	2	0	2	0	6	0	2	9	0	2	0	0	800.0
2204030	OIL FILTER	1	0	1	8	6	0	1	15	0	1	0	0	400.0
2204040	LIQ-TO-LIQ OIL COOLER	1	0	1	8	1	0	2	11	0	1	0	0	400.0
2204050	LINE/HOSE	5	0	3	19	0	0	4	24	0	3	0	0	800.0
	SUBSYSTEM TOTAL		3	12	50	21	4	17	92	3	14	1	0	
2205000	ENGINE ELECTRICAL SUBSYSTEM													
2205010	TEST SWITCH	1	0	5	0	0	0	7	8	0	7	0	0	800.0
2205020	ELECTRICAL HARNESS ASSEMBLY	1	0	2	0	0	0	3	4	0	3	0	0	800.0
2205030	FIRE DETECTOR ELEMENT	2	3	20	0	25	6	50	81	4	31	2	0	100.0
	SUBSYSTEM TOTAL		3	26	0	26	5	61	92	4	41	2	0	
2206000	ENGINE IGNITION SUBSYSTEM													
2206010	IGNITION EXCITER	1	0	5	0	0	0	19	19	0	11	2	0	800.0
2206020	IGNITION HARNESS	1	0	1	0	1	0	1	2	0	1	0	0	800.0
2206030	IGNITER PLUG	4	0	6	0	5	1	20	25	0	12	1	0	200.0
	SUBSYSTEM TOTAL		0	11	0	6	1	40	47	0	23	4	0	
2207000	BLEED AIR SUBSYSTEM													
2207010	ANTI-ICING PROBE	1	0	1	0	1	0	2	2	0	1	0	0	800.0

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
2207020	AIRBLEED ACTUATOR/STRAINER	1	0	1	0	3	0	2	5	0	1	0	0	800.0
2207030	AIR VALVE ASSEMBLY	1	0	3	0	0	0	15	15	0	6	0	0	800.0
2207040	LINE/HOSE	5	0	6	0	1	1	11	12	0	7	0	0	400.0
	SUBSYSTEM TOTAL		0	11	0	5	1	29	34	0	16	0	0	
	SYSTEM TOTAL		11	142	232	212	25	478	947	17	274	16	3	
2600000	DRIVES - TRANSMISSION SYSTEM													
2601000	MAIN XMSN DRIVES SUBSYSTEM													
2601010	ENGINE DRIVE SHAFT	1	17	12	15	15	46	40	116	33	28	1	0	100.0
2601030	SHAFT COUPLING-ZURN TYPE	2	5	4	30	10	8	8	56	8	7	0	0	100.0
2601040	SHAFT TO COUPLING CLAMP	2	0	2	15	4	1	5	25	1	3	0	0	400.0
	SUBSYSTEM TOTAL		22	18	61	29	56	52	197	42	39	1	0	
2602000	TAIL ROTOR/AUX POWER GR SUBSYS													
2602010	T.R./AUX POWER PLANT SHAFT	6	18	1	91	90	27	2	209	21	2	0	0	100.0
2602030	SHAFT COUPLING - ZURN TYPE	12	52	*	181	60	103	*	345	93	0	0	0	100.0
2602040	SHAFT TO COUPLING CLAMP	12	3	10	93	22	6	27	149	4	19	0	0	400.0
2602050	HANGER BEARING	4	49	*	30	20	99	*	149	89	0	0	0	100.0
	SUBSYSTEM TOTAL		122	11	395	192	235	29	852	207	20	0	0	
2606000	TRANSMISSION/GEARBOX SUBSYSTEM													
2606030	MAIN RUTOR TRANSMISSION ASSY	1	13	39	113	55	90	331	590	46	168	2	0	100.0
2606040	INTERMEDIATE GEARBOX ASSY	1	8	15	53	35	15	32	135	13	26	2	1	100.0
2606050	TAIL ROTOR GEARBOX ASSY	1	11	41	76	67	26	118	287	18	84	5	2	100.0
	SUBSYSTEM TOTAL		32	95	242	157	131	481	1012	77	278	8	4	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR ENT	UNSCH REPR ENT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
2607000	TRANSMISSION OIL SUBSYSTEM													
2607040	OIL FILTER	2	0	*	16	6	0	*	22	0	0	0	0	800.0
2607050	OIL COOLER	1	0	6	8	0	0	12	21	0	12	1	0	800.0
2607060	THERMOSTATIC VALVE	1	0	1	0	0	0	1	1	0	1	0	0	800.0
	NO F.R. INSPECTION DUE TO NO TIME ALLOCATION IN MCF													
2607070	LINE/HOSE	10	0	5	0	2	1	12	15	1	9	2	0	400.0
	SUBSYSTEM TOTAL		1	12	23	9	1	26	59	1	22	3	1	
2608000	MOUNTS SUBSYSTEM													
2608010	PYLON MOUNT ASSEMBLY	1	13	10	15	50	61	54	180	43	37	0	0	100.0
2608020	DAMPER	5	4	6	38	12	25	46	122	15	27	0	0	100.0
2608030	LIFT LINK	1	3	4	8	7	5	8	29	4	6	0	0	100.0
	SUBSYSTEM TOTAL		21	20	60	70	92	108	330	62	71	0	0	
	SYSTEM TOTAL		197	156	782	457	515	696	2450	388	429	12	4	
2900000	POWER PLANT INSTALLATION SYS													
2901000	ENG MOUNT/SUSPENSION SUBSYS													
2901010	ENGINE MOUNT	3	11	8	16	15	27	22	80	18	15	1	0	100.0
2901020	ENGINE MOUNT BEARING	2	3	3	11	7	5	6	28	4	5	0	0	100.0
	SUBSYSTEM TOTAL		14	11	26	22	32	28	109	22	20	1	0	
2902000	ENG AIR PARTCLE SEPARTR SUBSYS													
2902010	PARTICLE SEPARATOR ASSY	1	10	2	23	20	15	3	61	14	3	0	0	100.0
	SUBSYSTEM TOTAL		10	2	23	20	15	3	61	14	3	0	0	
2903000	AIR INDUCTION SUBSYSTEM													

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
2903010	INLET SCREEN	1	2	2	8	5	2	3	18	2	3	0	0	100.0
2903020	INLET DUCT/PLENUM CHAMBER	1	18	14	6	5	35	32	79	31	28	0	0	100.0
	SUBSYSTEM TOTAL		20	16	15	10	37	35	97	33	31	0	0	
2904000	AIRCRAFT EXHAUST SUBSYSTEM													
2904010	TAILPIPE	1	0	1	8	2	0	1	11	0	1	0	0	200.0
2904030	TAILPIPE CLAMP/COUPLING	1	0	1	0	2	0	1	3	0	1	0	0	800.0
	SUBSYSTEM TOTAL		0	2	8	4	0	2	14	0	1	0	0	
2905000	AIRCRAFT BLEED AIR SUBSYSTEM													
2905010	BLEED AIR VALVE	1	0	1	0	0	0	2	3	0	2	0	0	400.0
2905020	LINE/HOSE	4	0	2	15	1	0	6	22	0	4	0	0	400.0
	SUBSYSTEM TOTAL		0	3	15	1	0	8	25	0	6	0	0	
2906000	ENG ANTI-ICE/DE-ICE SUBSYSTEM													
2906010	TEMPERATURE SENSOR	1	0	1	0	3	0	7	10	0	3	0	0	800.0
2906020	ENGINE ANTI-ICE SWITCH	1	0	*	0	1	0	*	1	0	0	0	0	400.0
2906030	SOLENOID VALVE	1	0	1	0	0	0	2	2	0	2	0	0	800.0
2906040	WIRING HARNESS	1	0	*	0	0	0	*	1	0	0	0	0	800.0
	SUBSYSTEM TOTAL		0	3	0	5	1	9	15	0	5	0	0	
2907000	START SUBSYSTEM													
2907010	STARTER SWITCH	1	0	1	0	2	1	3	5	0	1	0	0	100.0
2907020	STARTER RELAY	1	0	*	0	0	0	*	1	0	0	0	0	800.0
2907030	STARTER SOLENOID	1	0	4	0	0	0	11	11	0	7	0	0	800.0
2907040	STARTER GENERATOR	1	0	12	0	1	0	47	48	0	32	3	1	400.0
	SUBSYSTEM TOTAL		0	17	0	4	1	60	65	1	41	3	1	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
2908000	THROTTLE/POWER LEVER SUBSYSTEM													
2908030	THROTTLE TWIST GRIP MECHANISM	2	0	1	31	1	0	5	37	0	4	0	0	800.0
2908040	ENGINE CONTROL LINKAGE	18	4	2	130	22	4	2	165	4	2	0	0	100.0
2908080	BOOT/SEAL	2	0	*	0	1	0	*	1	0	0	0	0	400.0
2908090	DROOP COMPENSATOR CAM BOX	1	0	21	0	1	1	42	45	1	35	3	1	400.0
2908100	TRIM SWITCH	2	0	*	0	1	0	*	2	0	1	0	0	800.0
2908110	RPM CONTROL ACTUATOR	1	8	34	0	2	10	49	62	8	37	2	1	100.0
2908120	ELECTRICAL HARNESS ASSY	1	0	*	0	0	0	*	2	0	1	0	0	800.0
	SUBSYSTEM TOTAL		13	58	167	29	15	101	313	12	80	5	2	
2909000	RPM WARNING SUBSYSTEM													
2909010	ENGINE SPEED SENSITIVE SWITCH	1	0	12	0	0	0	44	45	0	27	2	0	400.0
2909020	RPM WARNING LIMIT DETECTOR/BOX	1	0	84	0	2	1	172	174	0	111	2	1	400.0
2909030	AUDIO WARNING UNIT	1	0	13	0	1	0	26	27	0	17	0	0	400.0
	SUBSYSTEM TOTAL		1	109	0	3	1	242	247	1	155	5	1	
2910000	AIRCRAFT LUBRICATION SUBSYSTEM													
2910020	OIL COOLER BLOWER	1	2	1	8	5	4	4	20	3	3	0	0	100.0
2910030	BLOWER DUCT	1	0	*	0	1	0	*	1	0	0	0	0	200.0
2910040	OIL COOLER	1	1	*	8	4	3	11	26	3	10	0	0	100.0
2910050	THERMOSTATIC BYPASS VALVE	1	0	*	0	0	0	*	1	0	0	0	0	800.0
2910060	SOLENOID SHUT-OFF VALVE	1	0	*	0	0	0	*	1	0	1	0	0	800.0
2910070	LINE/HOSE	22	1	12	85	4	2	26	118	1	15	1	0	400.0
	SUBSYSTEM TOTAL		4	18	100	15	9	43	167	7	28	1	0	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
	SYSTEM TOTAL		62	238	355	113	111	532	1111	91	371	15	3	
4200000	ELECTRICAL SYSTEM													
4201000	AC POWER SUBSYSTEM													
4201030	RELAY	1	0	*	0	0	0	*	1	0	1	0	0	800.0
4201040	CURRENT LIMITER	20	0	2	0	1	0	6	6	0	1	0	0	800.0
4201050	RECEPTACLE	4	1	1	0	10	1	1	12	1	1	0	0	100.0
4201060	TRANSFORMER	1	0	2	0	0	0	3	4	0	3	1	1	800.0
4201070	TRANSFORMER RECTIFIER	1	0	1	0	0	0	1	1	0	1	0	0	800.0
4201080	INVERTER	2	3	20	0	7	4	39	51	3	27	2	1	100.0
4201090	CONTROL SWITCH	2	2	10	0	6	5	30	42	3	17	2	1	100.0
	SUBSYSTEM TOTAL		6	37	0	25	11	81	117	7	50	5	3	
4202000	DC POWER SUPPLY SUBSYSTEM													
4202010	GENERATOR	1	2	12	0	20	7	54	80	3	28	3	0	100.0
4202020	VOLTAGE REGULATOR	2	0	17	0	1	0	18	19	0	12	1	0	800.0
4202030	RELAY	2	1	6	0	2	1	7	10	1	6	1	0	200.0
4202040	CURRENT LIMITER	75	0	7	0	2	0	22	24	0	4	0	0	800.0
4202050	RECEPTACLE	1	3	1	0	2	14	7	24	8	4	0	0	100.0
4202060	BATTERY	1	31	86	8	38	25	82	152	22	72	3	0	100.0
4202070	BATTERY SUMP JAR	1	13	2	8	25	19	3	54	16	2	0	0	100.0
	SUBSYSTEM TOTAL		51	131	15	90	66	192	363	50	127	8	0	
4203000	ELECT PWR DISTRIBUTION SUBSYS													
4203010	MASTER SWITCH CONTROL PANEL	1	0	*	0	0	0	*	1	0	0	0	0	800.0

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
4203020	AIRCRAFT WIRING	1	1	26	0	22	1	58	82	1	46	1	0	400.0
	SUBSYSTEM TOTAL		1	26	0	23	1	58	82	1	46	1	0	
	SYSTEM TOTAL		57	193	15	138	78	331	563	58	224	13	3	
4400000	LIGHTING SYSTEM													
4401000	INTERIOR LIGHTS SUBSYSTEM													
4401010	COCKPIT/CABIN LIGHT	4	0	24	31	0	0	23	55	0	17	0	0	800.0
4401020	INSTRUMENT LIGHT	23	1	131	54	1	1	126	182	1	95	0	0	800.0
4401030	CONTROL PANEL	1	6	43	8	2	8	67	86	6	47	0	0	100.0
	SUBSYSTEM TOTAL		8	199	92	4	10	217	322	7	159	0	0	
4402000	EXTERIOR LIGHTS SUBSYSTEM													
4402010	LANDING LIGHT	1	5	26	8	2	4	25	39	3	22	0	0	100.0
4402020	SEARCH LIGHT	1	7	27	15	5	6	29	55	6	26	0	0	100.0
4402030	POSITION/FORMATION LIGHT	10	5	36	76	7	3	30	117	3	26	1	0	100.0
4402040	ANTI-COLLISION LIGHT	1	1	48	8	1	1	63	73	1	52	1	0	400.0
4402050	FLASHER UNIT	1	0	3	0	1	1	4	6	0	3	0	0	100.0
4402060	CONTROL PANEL	1	0	1	8	0	0	1	8	0	1	0	0	800.0
	SUBSYSTEM TOTAL		18	140	114	17	15	152	298	13	128	2	0	
	SYSTEM TOTAL		26	338	206	21	25	369	620	20	287	2	0	
4500000	HYDRAULIC POWER SYSTEM													
4501000	HYDRAULIC SOURCE/DISTRI SUBSYS													
4501010	RESERVOIR	1	7	13	8	7	7	17	39	5	12	3	0	100.0
4501020	HYDRAULIC PUMP	1	1	15	8	10	2	28	47	1	20	1	1	100.0

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
4501040	HYDRAULIC FILTER	2	23	23	15	50	32	39	136	20	25	0	0	100.0
4501060	SOLENOID VALVE	1	0	*	0	0	0	*	1	0	0	0	0	800.0
4501080	CHECK VALVE	10	0	4	0	3	0	10	14	0	6	0	0	400.0
4501090	DRAIN VALVE	1	0	*	0	0	0	*	1	0	0	0	0	400.0
4501110	SWITCH	1	2	12	0	3	4	22	29	2	15	2	0	100.0
4501120	HOSE/LINE	45	0	4	174	8	0	6	189	0	5	0	0	400.0
	SUBSYSTEM TOTAL		34	72	205	83	46	123	456	30	84	6	1	
4502000	HYDRAULIC BOOST SUBSYSTEM													
4502040	CYLINDER	4	95	101	30	185	274	350	840	170	217	9	3	100.0
4502060	IRREVERSIBLE VALVE	3	1	3	0	2	3	11	15	2	7	0	0	400.0
	SUBSYSTEM TOTAL		96	104	30	187	277	361	855	172	225	9	3	
	SYSTEM TOTAL		129	176	235	270	322	484	1311	202	309	16	3	
4600000	FUEL SYSTEM													
4601000	FUEL SUPPLY/DISTRI SUBSYSTEM													
4601010	FUEL CELL	4	0	7	0	38	2	59	98	1	31	0	0	800.0
4601020	SUMP PUMP	2	2	14	0	20	4	42	66	3	32	2	0	100.0
4601030	FUEL FILTER	1	1	7	8	6	0	7	21	0	7	1	0	400.0
4601060	LINE/HOSE	40	1	11	155	7	2	28	192	1	22	1	0	400.0
4601090	DEFUELING VALVE	2	0	2	0	2	0	3	5	0	3	2	0	800.0
4601100	SUMP DRAIN	4	0	4	0	1	0	2	3	0	2	1	0	800.0
	SUBSYSTEM TOTAL		3	45	163	75	8	141	387	6	96	6	0	
	SYSTEM TOTAL		3	45	163	75	8	141	387	6	96	6	0	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
4900000	MISCELLANEOUS UTILITIES SYSTEM													
4903000	WINDSHIELD WIPER SUBSYSTEM													
4903010	WIPER CONTROL PANEL	1	0	1	0	0	0	1	1	0	1	0	0	800.0
4903020	WIPER MOTOR	2	0	*	0	2	0	*	4	0	1	0	0	400.0
4903030	RELAY	1	0	*	0	0	0	*	1	0	1	0	0	800.0
4903040	WIRING HARNESS	1	0	1	0	0	0	0	1	0	0	0	0	800.0
4903060	BLADE ARM	2	0	2	0	0	0	3	4	0	3	0	0	800.0
4903070	BLADE	2	0	*	0	1	0	*	1	0	0	0	0	400.0
	SUBSYSTEM TOTAL		0	5	0	4	1	7	13	1	6	0	0	
4906000	CARGO SUSPENSION SUBSYSTEM													
4906010	CARGO SUSPENSION ASSEMBLY	1	0	1	23	6	0	1	31	0	1	0	0	400.0
4906020	CARGO HOOK ASSEMBLY	1	0	3	16	2	0	6	25	0	5	0	0	800.0
4906030	CARGO RELEASE PEDAL/CABLE	1	0	3	0	2	1	6	9	1	6	0	0	400.0
4906040	RELEASE SOLENOID	1	1	8	0	2	4	34	40	2	18	3	1	100.0
4906050	RELEASE RELAY	1	0	1	0	0	0	1	2	0	1	0	0	800.0
	SUBSYSTEM TOTAL		2	15	39	13	5	49	106	3	31	4	1	
4907000	COMBUSTION HEAT/DEFOG SUBSYS													
4907010	COMBUSTION HEATER ASSEMBLY	1	0	4	0	3	1	13	17	0	7	1	0	400.0
4907020	AIR BLOWER	1	2	8	0	7	6	28	42	3	16	0	0	100.0
4907030	VENTILATION/HEATER DUCT	5	0	1	0	1	0	2	3	0	2	0	0	800.0
4907040	AIR PRESSURE SWITCH	1	1	3	0	2	3	9	14	2	7	0	0	100.0
4907050	CABIN HEAT CONTROL PANEL	1	0	1	0	0	0	1	1	0	1	0	0	800.0

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
4907060	HEATER FUEL LINE	10	1	5	39	2	0	5	46	0	5	0	0	400.0
	SUBSYSTEM TOTAL		4	22	39	16	10	58	122	6	36	1	0	
4908000	BLEED AIR HEAT/DEFOG SUBSYSTEM													
4908010	CONTROL PANEL	1	0	1	0	1	0	2	3	0	2	0	0	800.0
4908020	SOLENOID VALVE	1	0	*	0	0	0	*	1	0	0	0	0	800.0
4908030	HEATER DUCT	25	0	2	0	2	0	3	6	0	2	0	0	800.0
	SUBSYSTEM TOTAL		0	3	0	4	0	6	10	0	4	0	0	
4909000	ELECTRIC CHIP DETECTOR SUBSYS													
4909020	CHIP DETECTOR	4	0	7	0	6	0	8	15	0	7	1	0	900.0
	SUBSYSTEM TOTAL		0	7	0	6	0	8	15	0	7	1	0	
	SYSTEM TOTAL		7	53	78	43	16	128	266	10	85	6	2	
5100000	INSTRUMENT SYSTEM													
5101000	FLIGHT INDICATORS SUBSYSTEM													
5101010	AIRSPEED	2	2	12	15	2	3	19	40	2	11	0	0	100.0
5101020	VERTICAL CLIMB	2	0	7	0	0	0	9	9	0	5	0	0	800.0
5101030	BAROMETRIC ALTIMETER	2	0	32	0	1	0	34	35	0	23	0	0	490.0
5101040	RATE OF CLIMB	2	0	6	0	2	0	10	13	0	5	0	0	800.0
5101050	DIRECTIONAL GYRO	2	0	2	0	0	0	2	2	0	2	0	0	800.0
5101060	TURN/SLIP	2	0	5	0	2	0	5	7	0	4	0	0	800.0
5101070	ATTITUDE INDICATOR	2	0	36	0	5	0	47	53	0	35	1	1	400.0
5101090	CRUISE GUIDE INDICATOR	1	0	2	0	0	0	3	3	0	2	0	0	900.0
	SUBSYSTEM TOTAL		3	102	15	14	3	130	163	2	86	1	1	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
5102000	MISC FLIGHT INSTRUMENTS SUBSYS													
5102010	AC VOLTMETER	1	0	3	0	3	0	3	6	0	2	0	0	800.0
5102020	DC VOLTMETER	1	0	5	0	3	0	5	7	0	4	0	0	800.0
5102030	DC LOADMETER	2	0	10	0	0	0	9	10	0	8	0	0	800.0
5102040	CLOCK	1	0	19	0	1	0	19	20	0	14	0	0	400.0
5102050	OUTSIDE AIR TEMPERATURE	1	0	4	0	0	0	3	3	0	2	0	0	800.0
5102060	MASTER CAUTION LIGHT	1	1	8	0	0	1	13	15	1	10	1	0	100.0
5102070	MASTER FIRE WARNING LIGHT	1	0	3	0	0	0	10	10	0	5	0	0	800.0
5102080	CAUTION LIGHT	16	0	21	0	1	0	25	26	0	20	1	0	800.0
	SUBSYSTEM TOTAL		2	73	0	9	2	87	97	1	64	2	0	
5103000	PITOT STATIC SUBSYSTEM													
5103010	PITOT HEAD	1	0	1	23	2	0	1	27	0	1	0	0	400.0
5103020	STATIC HEAD	1	0	*	8	1	0	*	9	0	0	0	0	800.0
5103030	PITOT HEAT SWITCH	1	0	*	15	1	0	*	17	0	0	0	0	400.0
5103040	LINE/HOSE	15	0	3	0	1	0	3	5	0	2	0	0	800.0
5103050	DRAIN VALVE	1	0	1	0	1	0	2	3	0	1	0	0	800.0
	SUBSYSTEM TOTAL		0	5	47	6	0	7	60	0	5	0	0	
5104000	NAVIGATIONAL INDICATORS SUBSYS													
5104010	MAGNETIC COMPASS	1	3	8	0	1	3	10	15	2	8	0	0	100.0
	SUBSYSTEM TOTAL		3	8	0	1	3	10	15	2	8	0	0	
5105000	COMPASS SUBSYSTEM													
5105010	RADIO MAGNETIC INDICATOR	2	0	8	0	0	0	9	9	0	8	0	0	800.0

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
5105020	COMPASS TRANSMITTER	1	0	2	0	0	0	4	4	0	4	0	0	800.0
5105030	AMPLIFIER	1	3	17	0	2	5	31	38	3	23	0	0	100.0
5105040	DIRECTIONAL GYRO	1	0	24	0	1	0	35	36	0	29	1	1	400.0
	SUBSYSTEM TOTAL		3	52	0	4	5	79	87	4	63	1	1	
5106000	ENGINE INSTRUMENTS SUBSYSTEM													
5106010	DUAL TACH INDICATOR	1	2	7	8	1	2	8	19	2	7	0	0	100.0
5106020	TACH GENERATOR	2	0	22	0	1	0	24	25	0	21	2	0	400.0
5106030	OIL TEMPERATURE INDICATOR	1	0	3	8	1	0	3	12	0	3	0	0	100.0
5106040	OIL TEMPERATURE BULB	1	0	1	0	0	0	0	1	0	0	0	0	800.0
5106050	OIL PRESSURE INDICATOR	1	1	7	8	1	1	8	17	1	6	0	0	100.0
5106060	OIL PRESS TRANSMITTER	1	0	10	0	0	0	16	17	0	12	0	0	400.0
5106070	FUEL PRESSURE INDICATOR	1	1	4	8	1	1	5	16	1	4	0	0	100.0
5106080	FUEL PRESSURE TRANSMITTER	1	0	22	0	0	0	37	38	0	32	0	0	400.0
5106090	TORQUE INDICATOR	1	0	12	8	0	0	12	20	0	10	0	0	400.0
5106100	TORQUE SENSOR TRANSMITTER	1	0	2	0	0	0	4	4	0	3	0	0	800.0
5106110	EXHAUST GAS TEMP INDICATOR	1	1	15	8	13	2	42	64	1	26	0	0	200.0
5106120	EXHAUST THERMOCOUPLE ASSY	1	0	2	0	3	0	4	7	0	4	0	0	800.0
	SUBSYSTEM TOTAL		7	107	46	24	8	163	240	6	128	4	0	
5107000	DRIVE SYS INSTRUMENTS SUBSYS													
5107010	OIL PRESSURE INDICATOR	1	0	3	8	0	0	5	13	0	4	0	0	800.0
5107020	OIL PRESSURE TRANSMITTER	1	1	3	0	2	1	3	6	1	3	0	0	100.0
5107040	TACH INDICATOR	1	0	6	8	0	0	9	17	0	5	1	0	800.0

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
5107050	TACH GENERATOR	1	0	8	0	0	0	16	16	0	10	0	0	800.0
5107060	OIL TEMPERATURE INDICATOR	1	0	3	8	0	0	5	13	0	3	0	0	800.0
5107080	OIL TEMPERATURE BULB	1	0	1	0	0	0	1	1	0	1	0	0	800.0
5107090	THERMOSWITCH	1	0	1	0	0	0	6	6	0	3	0	0	800.0
	SUBSYSTEM TOTAL		1	26	23	3	1	45	73	1	30	2	0	
5108000	FUEL QUANTITY SUBSYSTEM													
5108010	FUEL QUANTITY INDICATOR	1	5	11	8	7	5	13	33	4	10	0	0	100.0
5108030	FUEL QUANTITY TRANSMITTER	4	0	1	0	1	0	4	5	0	2	0	0	800.0
5108040	LOW LEVEL SWITCH	1	0	1	0	0	0	4	5	0	3	0	0	400.0
	SUBSYSTEM TOTAL		5	13	8	9	5	21	43	4	16	0	0	
5109000	HYDRAULIC INSTRUMENTS SUBSYS													
5109030	PRESSURE TRNSMITTER	1	0	24	0	0	0	26	27	0	20	2	1	400.0
	SUBSYSTEM TOTAL		0	24	0	0	0	26	27	0	20	2	1	
	SYSTEM TOTAL		23	412	138	70	27	569	804	20	421	11	4	
9100000	EMERGENCY EQUIP SYSTEM													
9101000	FIRE FIGHTING EQUIP SUBSYSTEM													
9101010	PORTABLE FIRE BOTTLE	1	0	2	0	1	0	1	2	0	1	0	0	400.0
	SUBSYSTEM TOTAL		0	2	0	1	0	1	2	0	1	0	0	
9102000	MEDICAL EQUIP SUBSYSTEM													
9102010	FIRST AID KIT	4	0	*	0	2	0	*	2	0	0	0	0	800.0
	SUBSYSTEM TOTAL		0	0	0	2	0	0	2	0	0	0	0	
9103000	SURVIVAL EQUIP SUBSYSTEM													

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.K. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
9103010	SURVIVAL KIT	1	0	*	0	1	0	*	1	0	0	0	0	400.0
	SUBSYSTEM TOTAL		0	0	0	1	0	0	1	0	0	0	0	
	SYSTEM TOTAL		0	2	0	4	0	1	5	0	1	0	0	
	ALL SYSTEM TOTAL		1173	2931	4514	2527	2616	7360	17016	1843	4759	147	35	

INSPECTION SCHEME COMPONENT SUMMARY

INSP SCHEME - 22
HELO MODEL - UH-1

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE-PAIR	UNSCH RE-PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETW INSP
	ALL SYSTEM TOTAL		1173	2931	4514	2527	2616	7360	17016	1943	4759	147	35	

INSP SCHEME - 22
HELO MODEL - UH-1

* SCHEDULED INSP. MAN-HOUR SUMMARY *

INSPECTION INTERVALS (100 HOURS)

SYSTEM		MOS	1	2	3	4	5	6	7	8	9	10	11	12
11 AIRFRAME SYSTEM		67W20	3.7	2.4	2.4	2.9	3.7	2.4	2.4	2.4				
		35K20	0.0	0.0	0.0	0.2	0.0	C.0	0.0	0.0				
	TOTAL		3.7	2.4	2.4	3.1	3.7	2.4	2.4	2.4				
12 FUSELAGE COMPARTMENT SYSTEM		67W20	0.2	0.1	0.1	1.6	0.2	0.1	0.1	0.1				
	TOTAL		0.2	0.1	0.1	1.6	0.2	0.1	0.1	0.1				
13 LANDING GEAR SYSTEM		67W20	0.5	0.3	0.3	0.3	0.5	0.3	0.3	0.3				
	TOTAL		0.5	0.3	0.3	0.3	0.5	0.3	0.3	0.3				
14 FLIGHT CONTROLS SYSTEM		67W20	6.3	5.8	5.8	6.3	6.3	5.8	5.8	5.8				
	TOTAL		6.3	5.8	5.8	6.3	6.3	5.8	5.8	5.8				
15 ROTOR SYSTEM		67W20	1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.7				
	TOTAL		1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.7				
22 TURBOSHAFT ENGINE SYSTEM		67W20	6.3	0.3	0.3	2.6	6.3	0.3	0.3	0.3				
	TOTAL		6.3	0.3	0.3	2.6	6.3	0.3	0.3	0.3				
26 DRIVES - TRANSMISSION SYSTEM		67W20	4.2	5.3	4.2	4.8	4.2	5.3	4.2	4.2				
	TOTAL		4.2	5.3	4.2	4.8	4.2	5.3	4.2	4.2				
29 POWER PLANT INSTALLATION SYS		67W20	0.9	1.5	0.9	1.6	0.9	1.5	0.9	1.0				
	TOTAL		0.9	1.5	0.9	1.6	0.9	1.5	0.9	1.0				
42 ELECTRICAL SYSTEM		67W20	1.1	2.0	1.1	1.1	1.1	2.0	1.1	1.5				
	TOTAL		1.1	2.0	1.1	1.1	1.1	2.0	1.1	1.5				
44 LIGHTING SYSTEM		67W20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3				
	TOTAL		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3				
45 HYDRAULIC POWER SYSTEM		67W20	2.6	3.1	2.6	2.6	2.6	3.1	2.6	2.6				
	TOTAL		2.6	3.1	2.6	2.6	2.6	3.1	2.6	2.6				
46 FUEL SYSTEM		67W20	C.2	0.2	0.7	0.2	0.2	0.2	0.7	3.5				
	TOTAL		0.2	0.2	0.7	0.2	0.2	0.2	0.7	3.5				

* SCHEDULED INSP. MAN-HOUR SUMMARY *

INSPECTION INTERVALS (100 HOURS)

SYSTEM		MOS	1	2	3	4	5	6	7	8	9	10	11	12
49 MISCELLANEOUS UTILITIES SYSTEM		67W20	0.1	0.1	0.8	0.1	0.1	0.1	0.8	1.3				
	TOTAL		0.1	0.1	0.8	0.1	0.1	0.1	0.8	1.3				
51 INSTRUMENT SYSTEM		67W20	0.2	0.4	0.5	0.4	0.2	0.4	0.5	1.9				
		35K20	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.3				
	TOTAL		0.2	0.5	0.8	0.5	0.2	0.5	0.8	2.2				
91 EMERGENCY EQUIP SYSTEM		67W20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
	TOTAL		0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
TOTAL ALL SYSTEMS		67W20	28.2	23.7	21.8	26.4	28.2	23.7	21.8	27.2				
		35K20	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.3				
	INSPECTION TOTAL		28.	24.	22.	27.	28.	24.	22.	28.				
	CLEANING & ACCESS TIME		6.1	5.1	4.8	5.8	6.1	5.1	4.8	6.0				
	LUBE & PREV. MAINT. TIME		3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7				
	TOTAL		38.	33.	31.	36.	38.	33.	31.	37.				

INSP SCHEME - 22
HELO MODEL - UH-1

* PREVENTIVE REPAIR MAN-HOUR SUMMARY *

INSPECTION INTERVALS (100 HOURS)

	SYSTEM		MOS	1	2	3	4	5	6	7	8	9	10	11	12
11	AIRFRAME SYSTEM		67N20	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4				
			68G20	6.4	5.9	5.9	5.9	6.4	5.9	5.9	5.9				
		TOTAL		6.8	6.3	6.3	6.3	6.8	6.3	6.3	6.3				
12	FUSELAGE COMPARTMENT SYSTEM		67N20	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0				
			68G20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		TOTAL		0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0				
13	LANDING GEAR SYSTEM		67N20	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1				
		TOTAL		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1				
14	FLIGHT CONTROLS SYSTEM		67N20	4.3	4.2	4.2	4.2	4.3	4.2	4.2	4.2				
			68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
			68E20	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4				
		TOTAL		4.7	4.5	4.5	4.6	4.7	4.5	4.5	4.5				
15	ROTOR SYSTEM		67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
			68E20	2.7	2.6	2.6	2.6	2.7	2.6	2.6	2.6				
		TOTAL		2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7				
22	TURBOSHAFT ENGINE SYSTEM		67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
			68B20	0.3	0.1	0.1	0.2	0.3	0.1	0.1	0.1				
		TOTAL		0.4	0.2	0.2	0.3	0.4	0.2	0.2	0.2				
26	DRIVES - TRANSMISSION SYSTEM		67N20	0.9	1.0	0.9	0.9	0.9	1.0	0.9	0.9				
			68D20	4.1	4.4	4.1	4.1	4.1	4.4	4.1	4.1				
		TOTAL		5.1	5.4	5.1	5.1	5.1	5.4	5.1	5.1				
29	POWER PLANT INSTALLATION SYS		67N20	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6				
			68G20	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4				
			68F20	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1				
			68B20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		TOTAL		1.1	1.3	1.1	1.1	1.1	1.3	1.1	1.1				
42	ELECTRICAL SYSTEM		68F20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8				
		TOTAL		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8				

INSP SCHEME - 22
HELO MODEL - UH-1

* PREVENTIVE REPAIR MAN-HOUR SUMMARY *

INSPECTION INTERVALS (100 HOURS)

SYSTEM		MOS	1	2	3	4	5	6	7	8	9	10	11	12
44 LIGHTING SYSTEM		68F20	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3				
	TOTAL		0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3				
45 HYDRAULIC POWER SYSTEM		67N20	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3				
		68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68H20	2.8	3.0	2.8	2.8	2.8	3.0	2.8	2.8				
	TOTAL		3.2	3.3	3.2	3.2	3.2	3.3	3.2	3.2				
46 FUEL SYSTEM		67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
		68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL		0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2				
49 MISCELLANEOUS UTILITIES SYSTEM		67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
		68G20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
	TOTAL		0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2				
51 INSTRUMENT SYSTEM		67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
		35K20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0				
		68F20	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2				
	TOTAL		0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3				
91 EMERGENCY EQUIP SYSTEM		67N20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TOTAL ALL SYSTEMS		67N20	8.1	7.8	7.9	7.9	8.1	7.8	7.9	7.9				
		68G20	5.7	6.3	6.3	6.3	6.7	6.3	6.3	6.3				
		35K20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0				
		68F20	1.5	1.6	1.5	1.5	1.5	1.6	1.5	1.6				
		68E20	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
		68B20	0.3	0.1	0.1	0.2	0.3	0.1	0.1	0.1				
		68D20	4.1	4.4	4.1	4.1	4.1	4.4	4.1	4.1				
		68H20	2.8	3.0	2.8	2.8	2.8	3.0	2.8	2.8				
	TOTAL		27.	26.	26.	26.	27.	26.	26.	26.				

* PREVENTIVE REPAIR ELAPSED MAINTENANCE TIME *

INSPECTION INTERVALS (100 HOURS)

SYSTEM		MOS	1	2	3	4	5	6	7	8	9	10	11	12
11 AIRFRAME SYSTEM		67N20	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2				
		68G20	4.4	4.1	4.1	4.1	4.4	4.1	4.1	4.1				
	TOTAL		4.7	4.4	4.4	4.4	4.7	4.4	4.4	4.4				
12 FUSELAGE COMPARTMENT SYSTEM		67N20	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0				
		68G20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL		0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0				
13 LANDING GEAR SYSTEM		67N20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5				
	TOTAL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5				
14 FLIGHT CONTROLS SYSTEM		67N20	3.0	2.9	2.9	2.9	3.0	2.9	2.9	2.9				
		68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68E20	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3				
	TOTAL		3.4	3.2	3.2	3.3	3.4	3.2	3.2	3.2				
15 ROTOR SYSTEM		67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
		68E20	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
	TOTAL		2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0				
22 TURBOSHAFT ENGINE SYSTEM		67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
		68B20	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1				
	TOTAL		0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1				
26 DRIVES - TRANSMISSION SYSTEM		67N20	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
		68D20	3.2	3.4	3.2	3.2	3.2	3.4	3.2	3.2				
	TOTAL		3.8	4.0	3.8	3.8	3.8	4.0	3.8	3.8				
29 POWER PLANT INSTALLATION SYS		67N20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5				
		68G20	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3				
		68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
		68B20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL		0.9	1.0	0.9	0.9	0.9	1.0	0.9	0.9				
42 ELECTRICAL SYSTEM		68F20	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
	TOTAL		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				

* PREVENTIVE REPAIR ELAPSED MAINTENANCE TIME *

INSPECTION INTERVALS (100 HOURS)

SYSTEM		MOS	1	2	3	4	5	6	7	8	9	10	11	12
44 LIGHTING SYSTEM		68F20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3				
	TOTAL		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3				
45 HYDRAULIC POWER SYSTEM		67N20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
		68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68H20	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8				
	TOTAL		2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0				
46 FUEL SYSTEM		67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
		68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL		0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
49 MISCELLANEOUS UTILITIES SYSTEM		67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
		68G20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
	TOTAL		0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1				
51 INSTRUMENT SYSTEM		67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0				
		35K20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
	TOTAL		0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2				
91 EMERGENCY EQUIP SYSTEM		67N20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TOTAL ALL SYSTEMS		67N20	5.4	5.2	5.3	5.3	5.4	5.2	5.3	5.3				
		68G20	4.7	4.5	4.5	4.5	4.7	4.5	4.5	4.5				
		35K20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		68F20	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.2				
		68E20	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3				
		68B20	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1				
		68D20	3.2	3.4	3.2	3.2	3.2	3.4	3.2	3.2				
		68H20	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8				
	TOTAL		19.	19.	18.	18.	19.	19.	18.	18.				

INSP SCHEME - 22
HELO MODEL - UH-1

* SCHEDULED INSPECTION SUMMARY *

INSPECTION INTERVALS (100 HOURS)

SCHEDULED EFFECTIVE MAN-HOURS		1	2	3	4	5	6	7	8	9	10	11	12
	SYSTEMS												
11	AIRFRAME SYSTEM	10.5	8.7	8.7	9.4	10.5	8.7	8.7	8.7				
12	FUSELAGE COMPARTMENT SYSTEM	0.3	0.1	0.1	1.7	0.3	0.1	0.1	0.1				
13	LANDING GEAR SYSTEM	1.6	1.4	1.4	1.4	1.6	1.4	1.4	1.4				
14	FLIGHT CONTROLS SYSTEM	11.0	10.4	10.4	10.9	11.0	10.4	10.4	10.4				
15	ROTOR SYSTEM	4.5	4.4	4.4	4.4	4.5	4.4	4.4	4.4				
22	TURBOSHAFT ENGINE SYSTEM	6.7	0.5	0.5	2.9	6.7	0.5	0.5	0.5				
26	DRIVES - TRANSMISSION SYSTEM	9.3	10.7	9.3	9.8	9.3	10.7	9.3	9.3				
29	POWER PLANT INSTALLATION SYS	1.9	2.7	1.9	2.7	1.9	2.7	1.9	2.1				
42	ELECTRICAL SYSTEM	1.8	2.8	1.8	1.9	1.8	2.8	1.8	2.3				
44	LIGHTING SYSTEM	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.6				
45	HYDRAULIC POWER SYSTEM	5.7	6.4	5.7	5.7	5.7	6.4	5.7	5.8				
46	FUEL SYSTEM	0.2	0.2	0.9	0.2	0.2	0.2	0.9	3.7				
49	MISCELLANEOUS UTILITIES SYSTEM	0.2	0.2	1.0	0.2	0.2	0.2	1.0	1.5				
51	INSTRUMENT SYSTEM	0.4	0.7	1.1	0.7	0.4	0.7	1.1	2.5				
91	EMERGENCY EQUIP SYSTEM	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
	TOTAL SCHEDULED EFFECTIVE MAN-HOURS	55	50	48	53	55	50	48	54				

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	1	2	3	4	5	6	7	8
TOTAL SCHEDULED ACTUAL MAN-HOURS	55	50	46	53	55	50	48	54
TOTAL SCHEDULED DOWNTIME HOURS	24	21	20	23	24	21	20	23
AVE. CREW SIZE - INSPECTION	2	2	2	2	2	2	2	2
AVE CREW SIZE - REPAIR	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9